Gilliam, Barbara

From: Calve, John (ASRC)
Sent: Thursday, September 11, 2003 8:10 AM
To: Gilliam, Barbara
Subject: RE: 10/077,943

Hi Barbara,

I checked this search, I didn't do any further searching. I couldn't think of another way of searching the compound, so that I would get good results. I remember writing the note, and apologize for not clearing this up up sooner. If you have any questions please feel free to call me.

John

-----Original Message-----
Fr m: Gilliam, Barbara
Sent: Wednesday, September 10, 2003 4:45 PM
T : Calve, John (ASRC)
Subject: RE: 10/077,943

OK. Thanks.

-----Original Message-----
From: Calve, John (ASRC)
Sent: Wednesday, September 10, 2003 4:44 PM
To: Gilliam, Barbara
Subject: 10/077,943

Hi Barbara,

I will have to check my records. It runs in my mind that I didn't do additional searching on this one, but let me check and get back with you.

John

STIC Search Report
EIC 1700

STIC Database Tracking Number: 99860

TO:	From:
Barbara Gilmore Location: CP3 9B18 Art Unit: 1752 August 5, 2003 Case Serial Number: 10/077943	John Calve Location: EIC 1700 CP3/4-3D62 Phone: 703-308-4139 John.calve@uspto.gov

Search Notes

PART I.

I'll send up rest of search today.

STIC Search Results Feedback Form

EIC17000

Questions about the scope or the results of the search? Contact ***the EIC searcher or contact:***

Kathleen Fuller, EIC 1700 Team Leader
308-4290, CP3/4-3D62

Voluntary Results Feedback Form

- *I am an examiner in Workgroup:* ☐ *Example: 1713*
- *Relevant prior art **found**, search results used as follows:*
  - ☐ 102 rejection
  - ☐ 103 rejection
  - ☐ Cited as being of interest.
  - ☐ Helped examiner better understand the invention.
  - ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
  (journal articles, conference proceedings, new product announcements etc.)

- *Relevant prior art **not found:***
  - ☐ Results verified the lack of relevant prior art (helped determine patentability).
  - ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to STIC/EIC1700 CP3/4 3D62

Access DB# 99865

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Barbara Gilliam Examiner #: 76164 Date: 7/28/03
Art Unit: 1752 Phone Number 305-1330 Serial Number: 10/077,943
Mail Box and Bldg/Room Location: CP3 9B18 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Positive-Type Image-Forming Material and Planographic Plate Precursor

Inventors (please provide full names): Tomotaka Tsuchimura, Ippei Nakamura, Akio Oda

Earliest Priority Filing Date: 2/20/01

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Please search the phenol of formulae (II')-(XI) of claims 2-11. If this produces a large answer set, a narrower search with photo? (e.g. photosensitive) and/or printing plate is acceptible.

US 20010019798

Thanks,
B. Gilliam

****

STAFF USE ONLY	Type of Search		Vendors and cost where applicable	
Searcher:	NA Sequence (#)		STN	
Searcher Phone #:	AA Sequence (#)		Dialog	
Searcher Location:	Structure (#)		Questel/Orbit	
Date Searcher Picked Up:	Bibliographic		Dr.Link	
Date Completed:	Litigation		Lexis/Nexis	
Searcher Prep & Review Time:	Fulltext		Sequence Systems	
Clerical Prep Time:	Patent Family		WWW/Internet	
Online Time:	Other		Other (specify)	

PTO-1590 (8-01)

```
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FILE 'REGISTRY' ENTERED AT 10:05:46 ON 05 AUG 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:     4 AUG 2003  HIGHEST RN 560991-54-0
DICTIONARY FILE UPDATES:    4 AUG 2003  HIGHEST RN 560991-54-0

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available.  See HELP
PROPERTIES for more information.  See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

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L1                STR
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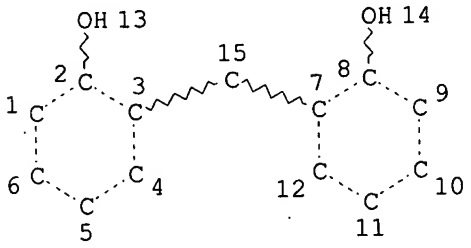


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DEFAULT ECLEVEL IS LIMITED

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NUMBER OF NODES IS  15

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L4          5308  SEA FILE=REGISTRY SSS FUL L1 NOT L2
L21               STR
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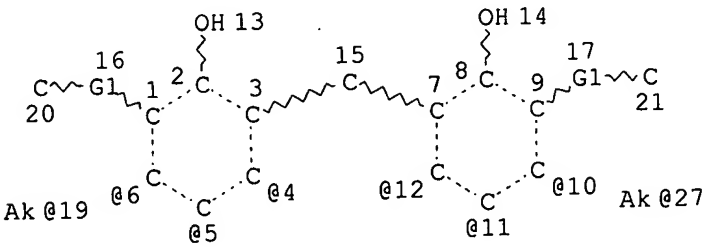

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VPA 27-12/11/10 U
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DEFAULT ECLEVEL IS LIMITED

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NUMBER OF NODES IS 21

STEREO ATTRIBUTES: NONE
L23 248 SEA FILE=REGISTRY SUB=L4 SSS FUL L21

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SEARCH TIME: 00.00.01

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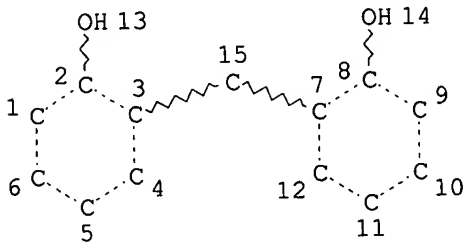

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DEFAULT ECLEVEL IS LIMITED

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NUMBER OF NODES IS 15

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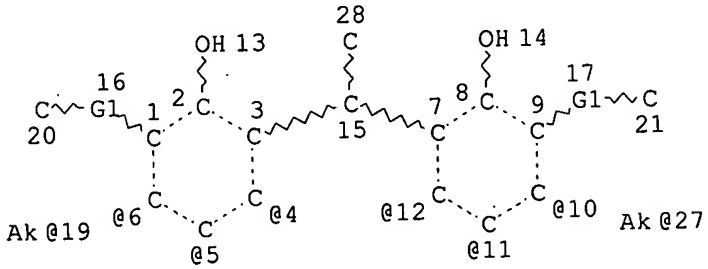

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VPA 19-6/5/4 U
VPA 27-12/11/10 U

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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC 7 3
NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE
L52 233 SEA FILE=REGISTRY SUB=L4 SSS FUL L50

100.0% PROCESSED 3277 ITERATIONS 233 ANSWERS
SEARCH TIME: 00.00.01

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FILE 'HCA' ENTERED AT 10:06:03 ON 05 AUG 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

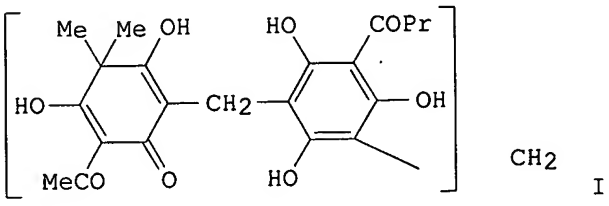
FILE COVERS 1907 - 31 Jul 2003 VOL 139 ISS 6
FILE LAST UPDATED: 31 Jul 2003 (20030731/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d L47 1-3 cbib abs hitind hitstr

L47 ANSWER 1 OF 3 HCA COPYRIGHT 2003 ACS on STN
108:192836 Quantitative determination of dryocrassin in ferns by TLC densitometry. Lu, Guibao; Fang, Jin; Huang, Qiaoshu (Tianjin Munic. Inst. Drug Control, Tianjin, Peop. Rep. China). Yaowu Fenxi Zazhi, 8(1), 17-20 (Chinese) **1988**. CODEN: YFZADL. ISSN: 0254-1793.

GI



I

AB Dryocrassin (I) was extd. from pulverized fern samples with benzene and sepd. by TLC on silica gel-CM cellulose **plates** using buffer soln. contg. vitamin C. The spots were developed by n-hexane-CHCl3-MeOH (30:15:1), sprayed with a 0.1% Fast Blue B soln. and measured densitometrically at .lambda.S = 490 nm and .lambda.R = 630 nm. The highest content of I (2.15%) was obsd. in Dryopteris crassirhizoma.

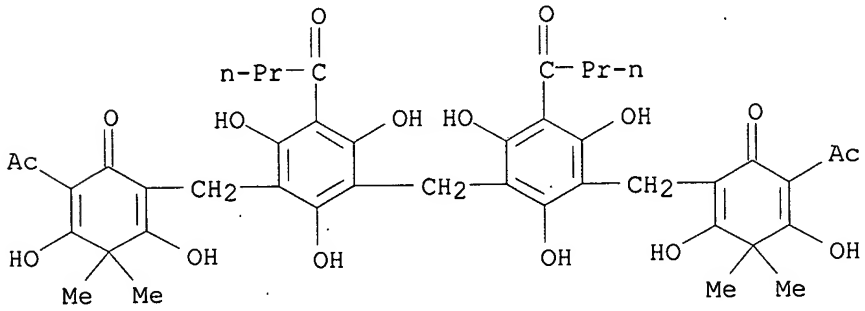
CC 64-2 (Pharmaceutical Analysis)
Section cross-reference(s): 11

IT **12777-70-7**
RL: ANT (Analyte); ANST (Analytical study)
(detn. of, in ferns by TLC-densitometry)

IT **12777-70-7**
RL: ANT (Analyte); ANST (Analytical study)
(detn. of, in ferns by TLC-densitometry)

RN 12777-70-7 HCA

CN 2,5-Cyclohexadien-1-one, 2,2'-[methylenebis[[2,4,6-trihydroxy-5-(1-oxobutyl)-3,1-phenylene]methylene]]bis[6-acetyl-3,5-dihydroxy-4,4-dimethyl- (9CI) (CA INDEX NAME)



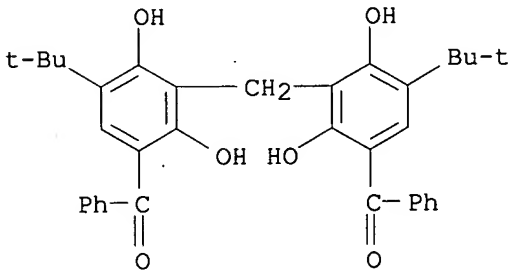
L47 ANSWER 2 OF 3 HCA COPYRIGHT 2003 ACS on STN

82:73901 Stabilizers and polyolefin compositions containing them. Fredricks, Richard A.; Nelson, Charles H.; Zepka, David J. (ICI America, Inc.). U.S. US 3772354 **19731113**, 4 pp. (English). CODEN: USXXAM.
APPLICATION: US 1971-204370 19711202.

GI For diagram(s), see printed CA Issue.

AB 3,3'-Methylenebis(5-tert-butyl-2,4-dihydroxybenzophenone) (I) was prepd. and complexed with transition metals to give uv stabilizer (II, M = Ni, Co, Cu, Mn, or Zn) for addn. at 0.1-1.0% (on polyolefin wt.) to polymers. Thus, 5-tert-butyl-2,4-dihydroxybenzophenone in aq. NaOH was mixed with 37% aq. HCHO while the mixt. was heated to 60-5.degree., maintained 1.5 hr, adjusted to pH 6.2-6.5 with dilute HCl, to give an orange I ppt., m.p. 210-3.degree., in 72.5% yield. To 5.0 g nickelous acetate tetrahydrate in MeOH was added 22.0 g I, and the slurry refluxed 24 hr to give light yellow nickel bis[3,3'-methylenebis(5-tert-butyl-2,4-dihydroxybenzophenone)] (II, M = Ni) (III), m.p. 235-40.degree., decomposing at 245.degree., in 88.5% yield. A polypropylene [9003-07-0] test formulation was prepd. contg. the resin 100, Zn stearate 0.2, glyceryl monostearate 0.1, and pentaerythritol tetrakis(3,5-di-tert-butyl-4-hydroxydihydrocinnamate) antioxidant 0.1 parts, to which 1.0 part III was optionally added, and the formulation compression molded at 220.degree. to form 0.20 in. thick **plates** which were exposed to full intensity radiation of (1) fluorescent sunlamp-blacklamp unit at .apprx.35.degree., and (2) Xenon arc Weatherometer, and tested for time to embrittlement and (by ir spectrophotometric techniques) for C:O content (expressed as time for 0.06% O2 uptake). The III-stabilized products had

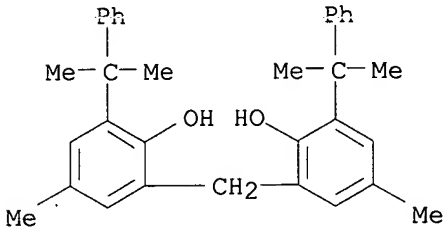
(1) embrittlement 1072-1340 hr, and C:O content 1150 hr, and (2) embrittlement 1770 hr, and C:O uptake 1770 hr; in contrast, a nonstabilized control had resp. values 50-150, 168, 700-800, and 365 hr.
IC C07F
NCL 260429000J
CC 36-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 25
IT **51202-90-5P**
RL: PREP (Preparation)
(prepn. of)
IT **51202-90-5P**
RL: PREP (Preparation)
(prepn. of)
RN 51202-90-5 HCA
CN Methanone, [methylenebis[5-(1,1-dimethylethyl)-2,4-dihydroxy-3,1-phenylene]]bis[phenyl- (9CI) (CA INDEX NAME)



L47 ANSWER 3 OF 3 HCA COPYRIGHT 2003 ACS on STN
67:64048 Bis[2-hydroxy-3-(.alpha.,.alpha.-dimethylbenzyl)-5-methylphenyl]methane. O'Shea, Francis X. (United States Rubber Co.). Ger. DE 120874 **19670524**, 3 pp. (German). CODEN: GWXXAW.
PRIORITY: US 19631010.
GI For diagram(s), see printed CA Issue.
AB Prepn. of the title compd. (I) and its use as an antioxidant for polypropylene (II) and lubricating oil are described. Thus, a soln. of 10 moles p-cresol and 54 g. BF3.Et2O was treated with 10 moles .alpha.-methylstyrene (III) at a rate sufficient to maintain the reaction temp. at .apprx.50.degree., heated 2 addnl. hrs. at 50.degree., treated with gaseous NH3 to ppt. BF3.NH3, filtered, and distd. to remove the fraction b10 <180.degree.. The residue (1227 g.) was distd. to give 806 g. 2-(.alpha.,.alpha.-dimethylbenzyl)-p-cresol, b1 147-51.degree., 1 mole of which was refluxed for 20 hrs. with 0.5 mole paraformaldehyde, 4.5 g. Bu acid phosphate, and 100 ml. benzene while 5 ml. of water was collected. The benzene was removed under reduced pressure, 3 g. propylene oxide was added to inactivate the catalyst, and the 231 g. of viscous liquid was crystd. to give white I, m. 141-3.degree. (EtOH). II (av. mol. wt. .apprx.200,000, d. 0.905, and m.p. 167.degree.) was milled at 171.degree. with various amts. of I and dilauryl thiodipropionate (IV), and pressed into **plates** 1.90 mm. thick. The **plates** were heated at 149.degree. with the following results [additive, concn. of additive (%), and days elapsed before visible decompn. given]: none, 0, 3; IV, 0.3, 12; I, 0.3, 2-3; I, 0.3 and IV, 0.3, 60. I (0.3%) was also added to 300 ml. petroleum base lubricating oil contg. 60 ml. H2O and heated to 95.degree. while 3 l./hr. O was bubbled through the mixt. The time rerequired for the acid no. of the mixt. to increase to 2, or for thick sludge to appear, was 106 days compared with 7, 28, and 34 days, resp., for oil-water mixts. contg. no additive, the reaction product (CA 48: 5222) of 1 part bisphenol

A and 4 parts III, and bis[2-hydroxy-3-(.alpha.-methylbenzyl)-5-methylphenyl]methane (CA 50: 7498i).

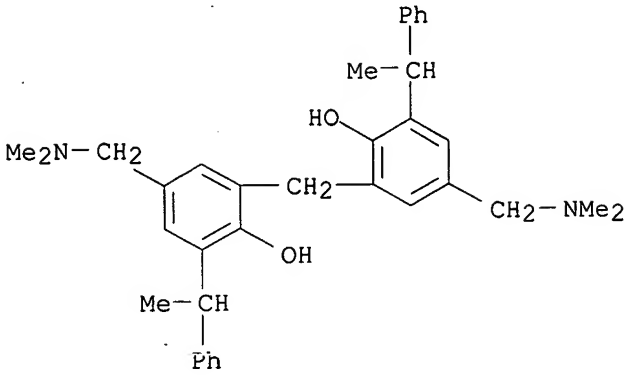
IC C07C
CC 25 (Noncondensed Aromatic Compounds)
IT 2675-76-5 **2933-90-6**
RL: RCT (Reactant); RACT (Reactant or reagent)
(as antioxidant for propene polymers and lubricants)
IT **2933-90-6**
RL: RCT (Reactant); RACT (Reactant or reagent)
(as antioxidant for propene polymers and lubricants)
RN 2933-90-6 HCA
CN Phenol, 2,2'-methylenebis[4-methyl-6-(1-methyl-1-phenylethyl)- (9CI) (CA INDEX NAME)



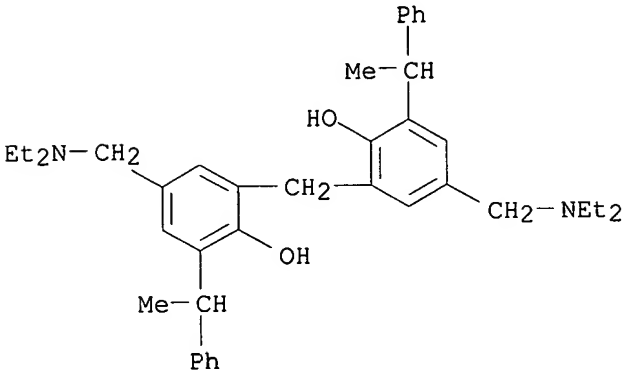
=> d L48 1,10,20,30,40,50,60,65-73 cbib abs hitind hitstr

L48 ANSWER 1 OF 73 HCA COPYRIGHT 2003 ACS on STN
134:44249 .alpha.-Methylbenzyl substituted bisphenols and their aminomethyl derivatives as multifunctional additives for synthetic lubricants. Sadykhov, K. I.; Mamedova, P. Sh.; Agaeva, A. N.; Tagieva, Z. D.; Mamedova, Z. P.; Kulieva, D. M. (Inst. Khim. Prisadok im. A. M. Kulieva, AN Azerb., Azerbaijan). Azerbaidzhanskii Khimicheskii Zhurnal (4), 15-19 (Russian) **1998**. CODEN: AZKZAU. ISSN: 0005-2531. Publisher: Elm.
AB The article describes the results of investigations of syntheses of .alpha.-methylbenzyl substituted bisphenols, their aminomethyl derivs. and examns. of thermal stability as their antioxidative and antimicrobial properties in synthetic oil. Detn. of structure and identification of synthesized compds. carried out by means of element anal., mass spectrometry and JP-spectroscopy. There is some correlation between the nature of substituents on nitrogen atom, thermal stability of compds. and their antioxidative efficiency.
CC 51-8 (Fossil Fuels, Derivatives, and Related Products)
IT 19072-81-2, Phenol, 4,4'-methylenebis[2,6-bis(1-phenylethyl)-
19072-81-2D, Phenol, 4,4'-methylenebis[2,6-bis(1-phenylethyl)-, aminomethyl derivs. 127449-47-2 127449-47-2D, aminomethyl derivs.
313271-41-9 313271-42-0 313271-43-1
313271-44-2
RL: MOA (Modifier or additive use); USES (Uses)
(.alpha.-methylbenzyl substituted bisphenols and their aminomethyl derivs. as multifunctional additives for synthetic lubricants)
IT **313271-41-9 313271-42-0 313271-43-1**
313271-44-2
RL: MOA (Modifier or additive use); USES (Uses)
(.alpha.-methylbenzyl substituted bisphenols and their aminomethyl derivs. as multifunctional additives for synthetic lubricants)
RN 313271-41-9 HCA
CN Phenol, 2,2'-methylenebis[4-[(dimethylamino)methyl]-6-(1-phenylethyl)-

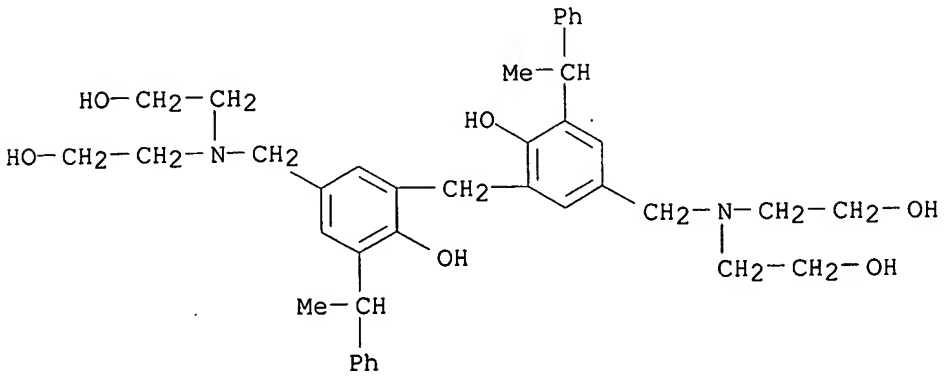
(9CI) (CA INDEX NAME)



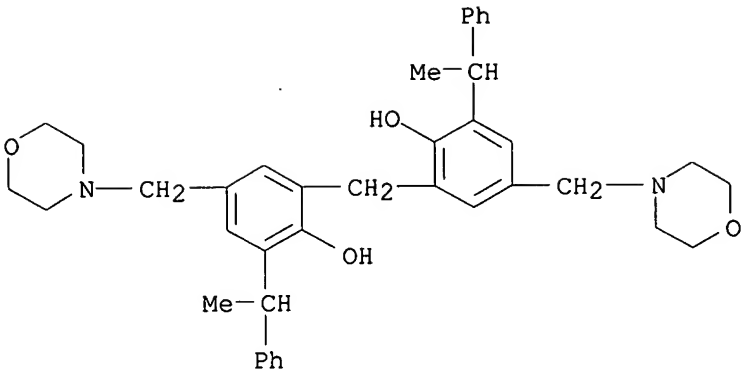
RN 313271-42-0 HCA
CN Phenol, 2,2'-methylenebis[4-[(diethylamino)methyl]-6-(1-phenylethyl)- (9CI) (CA INDEX NAME)



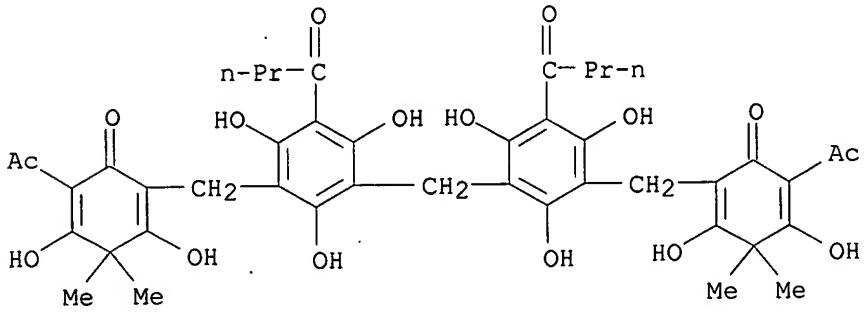
RN 313271-43-1 HCA
CN Phenol, 2,2'-methylenebis[4-[[bis(2-hydroxyethyl)amino]methyl]-6-(1-phenylethyl)- (9CI) (CA INDEX NAME)



RN 313271-44-2 HCA
CN Phenol, 2,2'-methylenebis[4-(4-morpholinylmethyl)-6-(1-phenylethyl)- (9CI) (CA INDEX NAME)



L48 ANSWER 10 OF 73 HCA COPYRIGHT 2003 ACS on STN
122:197097 Determination of dryocrassin and filixic acid ABA in Guanzhong by TLC scanning method. Ma, Guoxiang; Xu, Guojun; Jin, Rongluan; Xu, Luoshan (Dep. Pharmacogn., China Pharm. Univ., Nanjing, 210009, Peop. Rep. China). Zhongguo Yaoke Daxue Xuebao, 25(6), 376-7 (Chinese) **1994**. CODEN: ZHYXE9. ISSN: 1000-5048. Publisher: Zhongguo Yaoke Daxue.
AB Dryocrassin and filixic acid ABA was detd. in Guanzhong by TLC scanning method. The recoveries were 99.8 and 102.1% and the contents were 4.01 and 1.78%, resp. Results were satisfactory.
CC 64-2 (Pharmaceutical Analysis)
IT 4482-83-1, Filixic acid **12777-70-7**, Dryocrassin
RL: ANT (Analyte); ANST (Analytical study)
(dryocrassin and filixic acid ABA in Guanzhong by TLC scanning method)
IT **12777-70-7**, Dryocrassin
RL: ANT (Analyte); ANST (Analytical study)
(dryocrassin and filixic acid ABA in Guanzhong by TLC scanning method)
RN 12777-70-7 HCA
CN 2,5-Cyclohexadien-1-one, 2,2'-[methylenebis[[2,4,6-trihydroxy-5-(1-oxobutyl)-3,1-phenylene]methylene]]bis[6-acetyl-3,5-dihydroxy-4,4-dimethyl- (9CI) (CA INDEX NAME)



L48 ANSWER 20 OF 73 HCA COPYRIGHT 2003 ACS on STN
112:55171 An empirical correlation between optical rotation and absolute configuration of optically active .alpha.-methybutyrylphloroglucinols and its synthesis. Pei, Y. H.; Li, X.; Zhu, T. R. (Res. Dep. Nat. Drugs, Shenyang Coll. Pharm., Shenyang, 110015, Peop. Rep. China). Yaoxue Xuebao, 24(6), 413-21 (Chinese) **1989**. CODEN: YHHPAL. ISSN: 0513-4870.
AB Fourteen new compds. were synthesized of which twelve are

(S)-(+)-.alpha.-methylbutyrylphloroglucinols. On the basis of optical rotation data and theor. anal., an empirical correlation between optical rotation data and abs. configuration of optically active .alpha.-methylbutyrylphloroglucinols has been established by means of Brewster's rule of at. asymmetry. It can be served as a means of abs. configuration assignment of optically active .alpha.-methylbutyrylphloroglucinols.

CC 25-18 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)

IT **55576-66-4**, (S)-(+)-Agrimol B
RL: PROC (Process)
(optical rotation of)

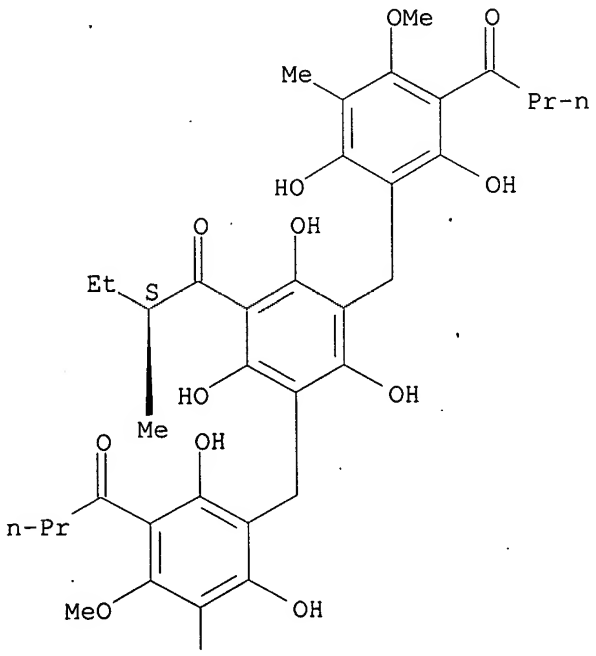
IT **55576-66-4**, (S)-(+)-Agrimol B
RL: PROC (Process)
(optical rotation of)

RN 55576-66-4 HCA

CN 1-Butanone, 1-[3,5-bis[[2,6-dihydroxy-4-methoxy-3-methyl-5-(1-oxobutyl)phenyl]methyl]-2,4,6-trihydroxyphenyl]-2-methyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

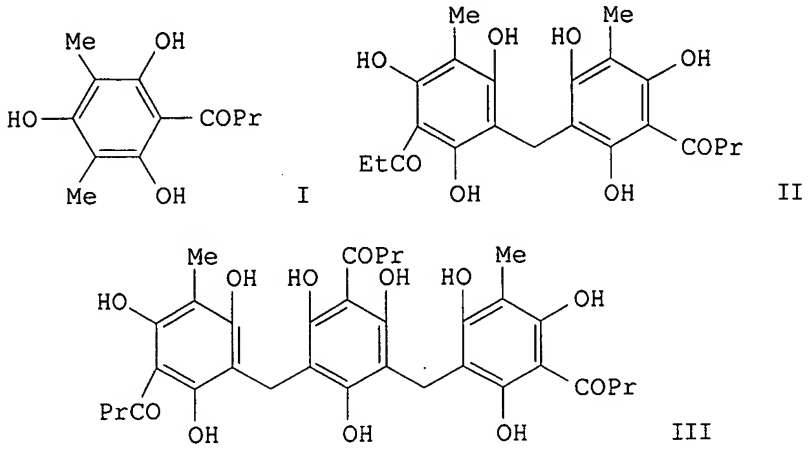


PAGE 2-A

L48 ANSWER 30 OF 73 HCA COPYRIGHT 2003 ACS on STN
98:86241 Phloroglucinol derivatives of Dryopteris abbreviata. Part II.
Coskun, Maksut; Sakushima, Akiyo; Nishibe, Sansei; Hisada, Sueo (Fac.

Pharm. Sci., Higashi Nippon Gakuen Univ., Ishikari-Tobetsu, 061-02, Japan). Chemical & Pharmaceutical Bulletin, 30(11), 4102-6 (English) **1982**. CODEN: CPBTAL. ISSN: 0009-2363.

GI



I II III

AB The phloroglucinol derivs. of Turkish D. abbreviata, a member of the European D. filix-mas complex, were investigated. A known compd., flavaspidic acid PB, and 3 new compds., designated as dimethylphlorobutyrophenone (I), abbreviatin PB (II), and trisabbreviatin BBB (III), were isolated in addn. to the already reported compds., filixic acid, flavaspidic acid AB, and abbreviatin BB. This is the first report of the occurrence of series of phloroglucinol derivs. lacking the filicinic acid ring moiety, i.e., compds. I, II, III, and abbreviatin BB, in European taxa of the D. filix-mas complex.

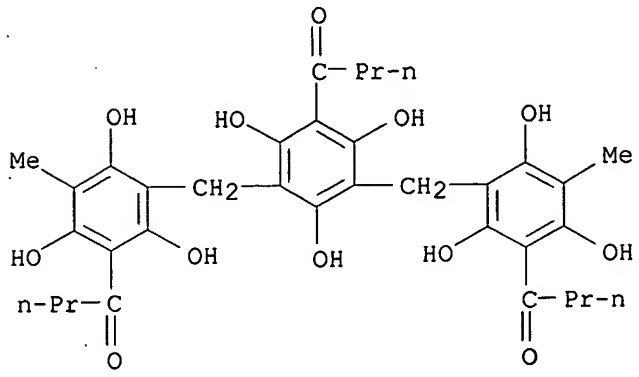
CC 11-1 (Plant Biochemistry)

IT 3773-25-9 **84633-05-6** 84633-06-7 84633-27-2
RL: BIOL (Biological study)
(from Dryopteris abbreviata)

IT **84633-05-6**
RL: BIOL (Biological study)
(from Dryopteris abbreviata)

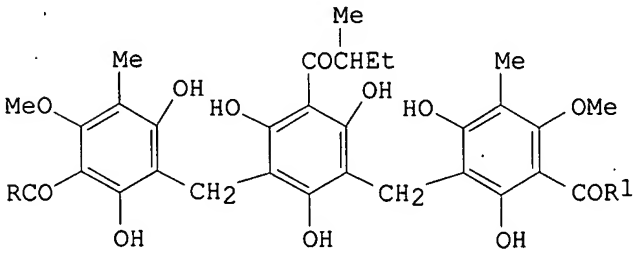
RN 84633-05-6 HCA

CN 1-Butanone, 1,1'-[[2,4,6-trihydroxy-5-(1-oxobutyl)-1,3-phenylene]bis[methylene(2,4,6-trihydroxy-5-methyl-3,1-phenylene)]]bis-(9CI) (CA INDEX NAME)



L48 ANSWER 40 OF 73 HCA COPYRIGHT 2003 ACS on STN
90:19009 Studies on the active principles of Shianhotsao. II. Structures of agrimol A, B, D and E. Cheng, Chung-Liang; Chu, Ta-Yuan; Wang, Hung-Cheng; Huang, Pao-Shan; Chin, Kuo-Wei (Shanghai Inst. Mater. Med., Acad. Sin., Shanghai, Peop. Rep. China). Huaxue Xuebao, 36(1), 35-41 (Chinese) **1978**. CODEN: HHHPA4. ISSN: 0567-7351.

GI



I, R=R1=CHMe2
II, R=R1=Pr
III, R=CHMe2, R1=Me
IV, R=R1=Me

AB The structure of agrimols A (I) [**55576-65-3**], B (II) [**55576-66-4**], D (III) [**55576-64-2**] and E (IV) [**55576-68-6**] isolated from the Chinese herb medicine Agrimonia pilosa were detd. by UV, IR, NMR and mass spectroscopy, and by chem. reactions.

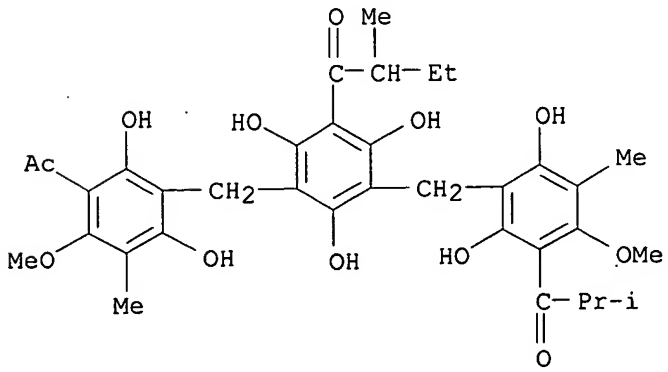
CC 11-1 (Plant Biochemistry)
Section cross-reference(s): 63

IT **55576-64-2 55576-65-3 55576-66-4 55576-68-6**
RL: PRP (Properties)
(structure of)

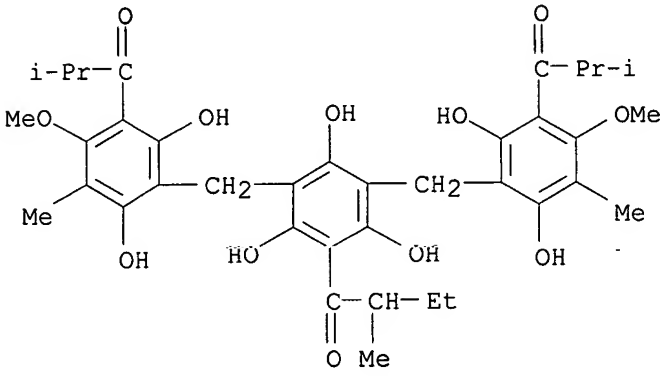
IT **55576-64-2 55576-65-3 55576-66-4 55576-68-6**
RL: PRP (Properties)
(structure of)

RN 55576-64-2 HCA

CN 1-Butanone, 1-[3-[(3-acetyl-2,6-dihydroxy-4-methoxy-5-methylphenyl)methyl]-5-[[2,6-dihydroxy-4-methoxy-3-methyl-5-(2-methyl-1-oxopropyl)phenyl]methyl]-2,4,6-trihydroxyphenyl]-2-methyl- (9CI) (CA INDEX NAME)



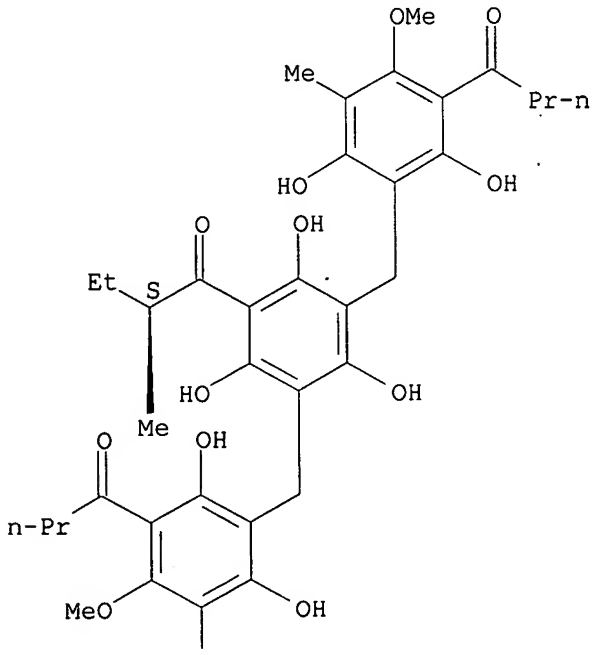
RN 55576-65-3 HCA
CN 1-Butanone, 1-[3,5-bis[[2,6-dihydroxy-4-methoxy-3-methyl-5-(2-methyl-1-oxopropyl)phenyl]methyl]-2,4,6-trihydroxyphenyl]-2-methyl- (9CI) (CA INDEX NAME)



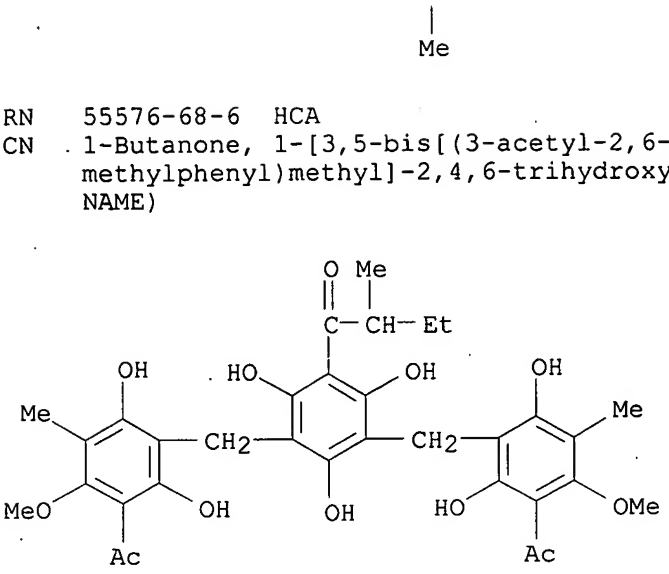
RN 55576-66-4 HCA
CN 1-Butanone, 1-[3,5-bis[[2,6-dihydroxy-4-methoxy-3-methyl-5-(1-oxobutyl)phenyl]methyl]-2,4,6-trihydroxyphenyl]-2-methyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



RN 55576-68-6 HCA
CN 1-Butanone, 1-[3,5-bis[(3-acetyl-2,6-dihydroxy-4-methoxy-5-methylphenyl)methyl]-2,4,6-trihydroxyphenyl]-2-methyl- (9CI) (CA INDEX NAME)

L48 ANSWER 50 OF 73 HCA COPYRIGHT 2003 ACS on STN
85:63896 Antioxidants and stabilizers. LXV. Contribution to the investigation of sensitized photooxidation of phenolic antioxidants. Quenching of singlet oxygen with stilbenequinoid compounds. Taimr, L.; Pospisil, J. (Inst. Macromol. Chem., Czech. Acad. Sci., Prague, Czech.). Angewandte Makromolekulare Chemie, 52(1), 31-8 (English) **1976**. CODEN: ANMCBO. ISSN: 0003-3146.

AB The photooxidn. of a typical polymer antioxidant 2,6-di-tert-butyl-4-methylphenol (I) [128-37-0], sensitized by methylene blue in CH2Cl2, proceeds at a reduced rate, but is otherwise similar to that in MeOH, with formation of 2,6-di-tert-butyl-4-methyl-4-hydroperoxy-2,5-cyclohexadiene-1-one [6485-57-0]. In contrast, 2,2'-methylenebis(4-methyl-6-tert-butylphenol) (II) [119-47-1] remains almost unoxidized in CH2Cl2. This is due to formation of stilbenequinoid derivs., which slow down oxidn., even at low concns. The effect is similar to quenching by .beta.-carotene(III). I has a weaker tendency than II to form a stilbenequinoid deriv., e.g. 3,5,3',5'-tetra-tert-butylstilbenequinone (IV) [809-73-4], which is however also an active oxidn. retarder. The mechanism of quenching by IV is the same as that by III, i.e., singlet O quenching, although IV is more stable to oxidn.

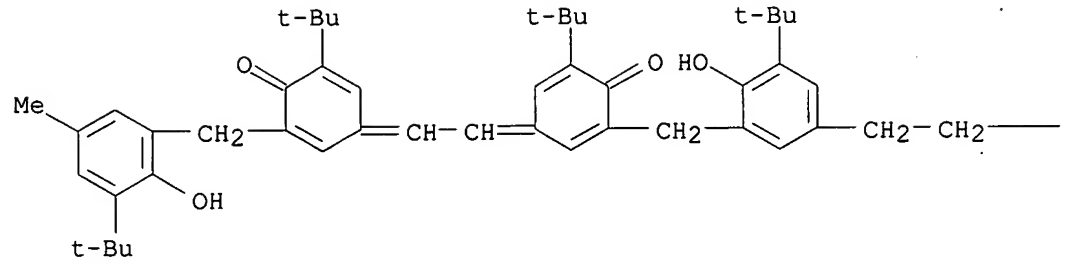
CC 36-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 22

IT 809-73-4 59884-28-5 **59884-29-6**
RL: USES (Uses)
(quenching agents, for singlet oxygen, in photooxidn.)

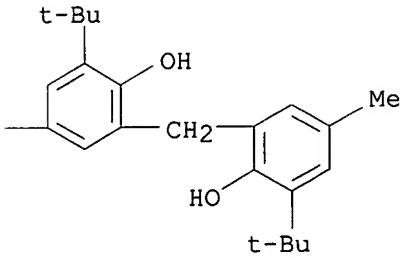
IT **59884-29-6**
RL: USES (Uses)
(quenching agents, for singlet oxygen, in photooxidn.)

RN 59884-29-6 HCA
CN 2,5-Cyclohexadien-1-one, 2-(1,1-dimethylethyl)-6-[[3-(1,1-dimethylethyl)-5-[2-[3-(1,1-dimethylethyl)-5-[[3-(1,1-dimethylethyl)-2-hydroxy-5-methylphenyl]methyl]-4-hydroxyphenyl]ethyl]-2-hydroxyphenyl]methyl]-4-[[3-(1,1-dimethylethyl)-5-[[3-(1,1-dimethylethyl)-2-hydroxy-5-methylphenyl]methyl]-4-oxo-2,5-cyclohexadien-1-ylidene]ethylidene]- (9CI) (CA INDEX NAME)

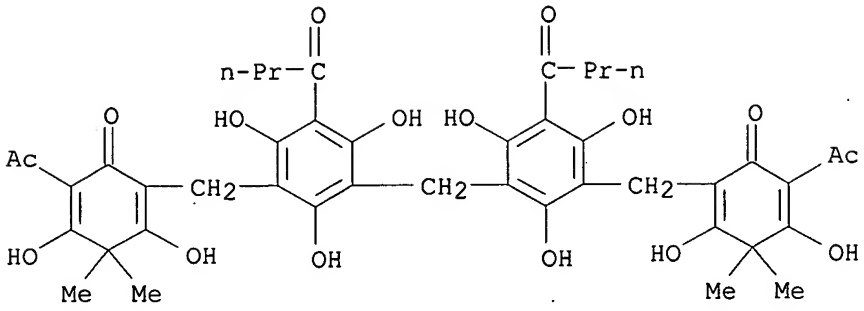
PAGE 1-A



PAGE 1-B



L48 ANSWER 60 OF 73 HCA COPYRIGHT 2003 ACS on STN
79:113196 Dryocrassin. New acylphloroglucinol from Dryopteris crassirhizoma. Noro, Y.; Okuda, K.; Shimada, H.; Hisada, Sueo; Inagaki, I.; Tanaka, T.; Yokohashi, H. (Fac. Pharm., Meijo Univ., Nagoya, Japan). Phytochemistry (Elsevier), 12(6), 1491-2 (English) **1973**. CODEN: PYTCAS. ISSN: 0031-9422.
GI For diagram(s), see printed CA Issue.
AB Dried D. crassirhizoma material, on extn., yielded a filixic acid-like substance, which proved to be a new 4 ring phloroglucinol deriv.; its structure was established as I and named dryocrassin. Alk. cleavage of I was carried out under 2 different sets of conditions, and both decompn. products were examd. The NaOH soln. of I was heated with Zn dust at 100.degree. for 5 min. Acetylfilicinic acid (II), C10H12O4, m.p. 166-7.degree., and phlorobutyrophenone, C10H12O4, mp. 184-5.degree., were isolated from the reaction mixt. The Na2CO3 soln. of I was heated with Na2S2O4 at 100.degree. for 5 min, and II and methylene-bis-phlorobutyrophenone (III), C21H24O8, m.p. 214-6.degree. were obtained. The structure of I was further confirmed by its synthesis. II, III, and formalin were reacted together in dil. alk. soln. and I was sepd.
CC 11-1 (Plant Biochemistry)
IT **12777-70-7**
RL: PRP (Properties)
(structure of)
IT **12777-70-7**
RL: PRP (Properties)
(structure of)
RN 12777-70-7 HCA
CN 2,5-Cyclohexadien-1-one, 2,2'-[methylenebis[[2,4,6-trihydroxy-5-(1-oxobutyl)-3,1-phenylene]methylene]]bis[6-acetyl-3,5-dihydroxy-4,4-dimethyl- (9CI) (CA INDEX NAME)



L48 ANSWER 65 OF 73 HCA COPYRIGHT 2003 ACS on STN
76:127499 Antioxidants and stabilizers. XXXI. Contribution to the knowledge of antioxidative properties and transformations of 2,2'-methylenebis(4-methyl-6-tert-butylphenol). Zikmund, L.; Taimr, L.; Coupek, J.; Pospisil, J. (Inst. Macromol. Chem., Czech. Acad. Sci., Prague, Czech.). European Polymer Journal, 8(1), 83-90 (English) **1972**. CODEN: EUPJAG. ISSN: 0014-3057.

AB Tetralin [119-64-2] was oxidized at 60.deg. in the presence of a 2,2'-methylenebis(4-methyl-6-tert-butylphenol) (I) [119-47-1] inhibitor, and formed the dimer 1,2-bis[5-tert-butyl-3-(3-tert-butyl-2-hydroxy-5-methylbenzyl)-4-hydroxyphenyl]ethane (II) [**34569-39-6**], the trimer bis[3-tert-butyl-5-[2-[5-tert-butyl-3-(3-tert-butyl-2-hydroxy-5-methylbenzyl)-4-hydroxyphenyl]ethyl]-2-hydroxyphenyl]methane (III) [**34569-40-9**], and a tetralyl analog of the cyclohexadienone deriv. 2,2'-methylenebis[4-tert-butyl-6-(tert-butylperoxy)-6-methyl-1,4-cyclohexadien-3-one] (IV) [34569-41-0]. The formation of II and III during polypropylene (V) [9003-07-0] oxidn. at 180.deg. could not be excluded. At the high V oxidn. temp., II and III disappeared faster from the substrate in the presence of I; however, the II and III antioxidative activity in both substrates was confirmed. IV had no antioxidative properties., and depressed the I activity during V oxidn.

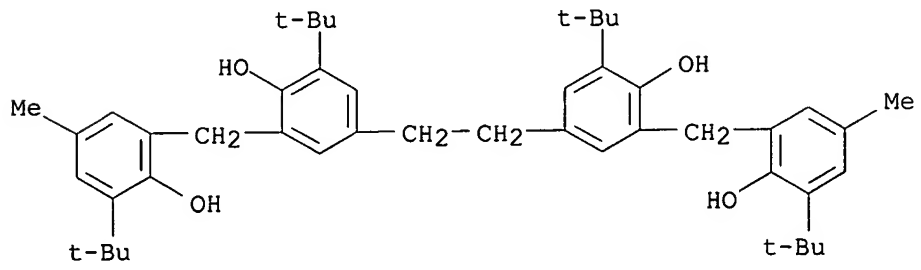
CC 35 (Synthetic High Polymers)

IT **34569-39-6P 34569-40-9P** 34569-41-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, by tetralin oxidn. in presence of methylenebis(methylbutylphenol))

IT **34569-39-6P 34569-40-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, by tetralin oxidn. in presence of methylenebis(methylbutylphenol))

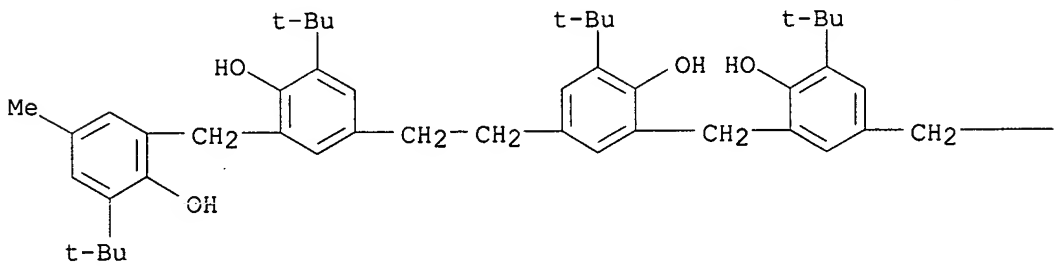
RN 34569-39-6 HCA

CN Phenol, 4,4'-(1,2-ethanediyl)bis[2-(1,1-dimethylethyl)-6-[[3-(1,1-dimethylethyl)-2-hydroxy-5-methylphenyl]methyl]- (9CI) (CA INDEX NAME)

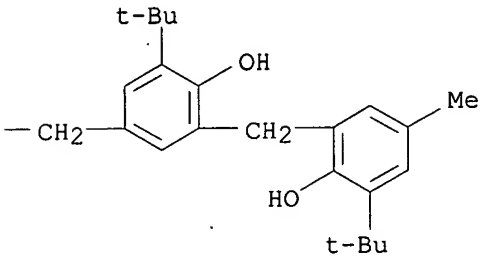


RN 34569-40-9 HCA
CN Phenol, 2,2'-methylenebis[6-(1,1-dimethylethyl)-4-[2-[3-(1,1-dimethylethyl)-5-[[3-(1,1-dimethylethyl)-2-hydroxy-5-methylphenyl]methyl]-4-hydroxyphenyl]ethyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

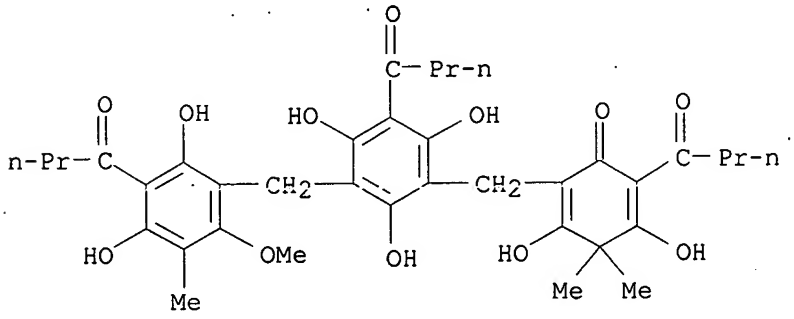


PAGE 1-B

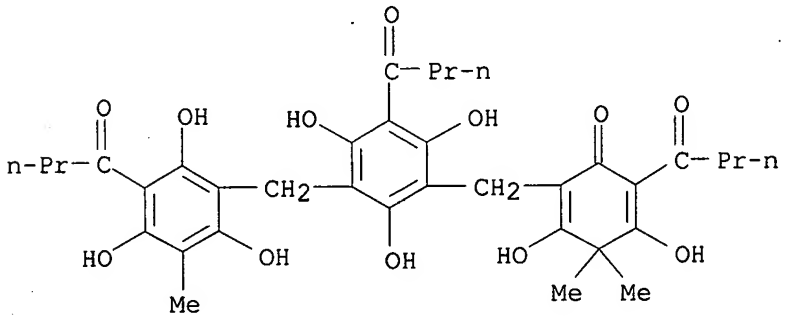


L48 ANSWER 66 OF 73 HCA COPYRIGHT 2003 ACS on STN
76:110403 Phlorglucides of Dryopteris villarii and other fern of the Dryopteris genus as well as possible derivatives of Dryoperis filix-mas. Widen, C. J.; Vida, G.; Von Euw, J.; Reichstein, T. (Abt. Pharmakognosie, Univ. Helsinki, Helsinki, Finland). Helvetica Chimica Acta, 54(8), 2824-50 (German) **1971**. CODEN: HCACAV. ISSN: 0018-019X.
GI For diagram(s), see printed CA Issue.
AB Based on its phloroglucide content, the allotetraploid species D. filixmas appeared to originate from a hybrid of D. abbreviata with D. villarii, with subsequent doubling of its chromosomes. D. filix-mas contained flavaspidic acid and filixic acid (I) in large amts. as did D. abbreviata, and in addn. contained some para-aspidin (II) and desaspidin (III), which were present in large amts. in D. villarii. D. aitoniana contained large amts. of trisflavaspidic acid but no I or III and only traces of II, and hence was an unlikely progenitor of D. filix-mas. The apogamous triploid D. remota probably originated from a hybrid of D. assimilis and diploid D. borreri. Like D. assimilis, D. remota contained no I but large amts. of aspidin BB and II; D. remota also contained large amts. of trisparaaspidin (IV). D. dilatata may derive from a hybrid of D. assimilis and D. aemula, since all 3 species contained flavaspidic acid, aspidin BB, III, and albaspidin; D. assimilis and D. dilatata also contained phloropyron.
CC 11 (Plant Biochemistry)
IT 114-42-1 114-43-2 584-28-1 644-61-1 989-54-8 4482-83-1 19489-48-6 **30888-07-4** **36253-23-3**
RL: BIOL (Biological study)
(in Dryopteris)

IT **30888-07-4 36253-23-3**
RL: BIOL (Biological study)
(in Dryopteris)
RN 30888-07-4 HCA
CN 2,5-Cyclohexadien-1-one, 2-[[3-[[2,4-dihydroxy-6-methoxy-5-methyl-3-(1-oxobutyl)phenyl]methyl]-2,4,6-trihydroxy-5-(1-oxobutyl)phenyl]methyl]-3,5-dihydroxy-4,4-dimethyl-6-(1-oxobutyl)- (9CI) (CA INDEX NAME)

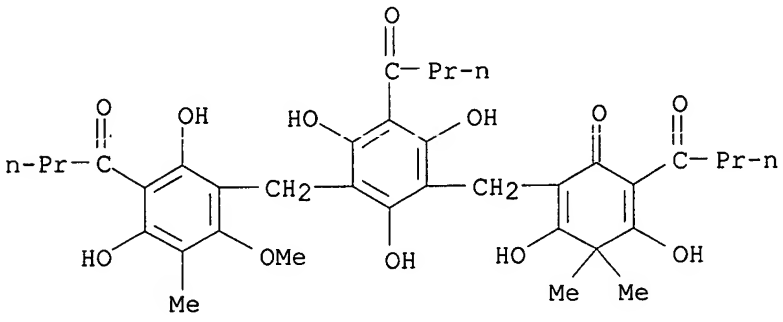


RN 36253-23-3 HCA
CN 2,5-Cyclohexadien-1-one, 3,5-dihydroxy-4,4-dimethyl-2-(1-oxobutyl)-6-[[2,4,6-trihydroxy-3-(1-oxobutyl)-5-[[2,4,6-trihydroxy-3-methyl-5-(1-oxobutyl)phenyl]methyl]phenyl]methyl]- (9CI) (CA INDEX NAME)

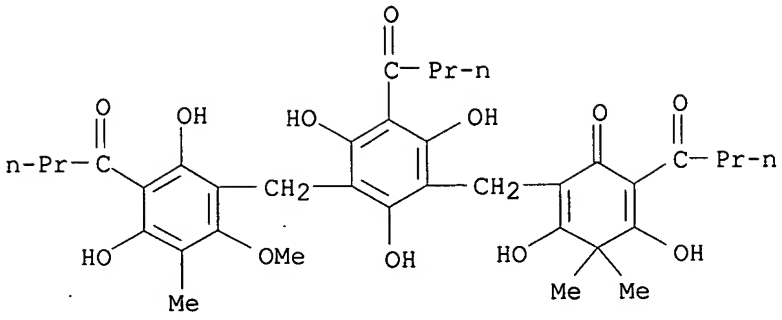


L48 ANSWER 67 OF 73 HCA COPYRIGHT 2003 ACS on STN
74:115834 Thin-layer chromatographic separation of phloroglucinol derivatives from Dryopteris ferns at different pH values. Haapalainen, Liisa; Widen, C. F. (Dep. Pharmacognosy, Univ. Helsinki, Helsinki, Finland). Farmaseuttinen Aikakauslehti, 79(10), 161-73 (English) **1970**. CODEN: FMAKAZ. ISSN: 0367-259X.
AB The chromatographic behavior of several phloroglucinol derivs. from Dryopteris (ferns) and their decompn. products was studied on thin-layers buffered from pH 4 to 10 using the gradient technique of Stahl. The best sepn. of most substances was achieved at a pH of about 6, with citric acid-phosphate buffer. However, a good sepn. of the bicyclic butyrylphloroglucinol methyl ethers was obsd. between pH 8 and 9 using tris(hydroxymethyl)aminomethane-HCl as a buffer. The monocyclic phloroglucinol derivs. could only partly be sepd. from each other at every pH tested.
CC 63 (Pharmaceuticals)
IT 114-42-1 114-43-2 584-28-1 644-61-1 989-54-8 1509-06-4 1509-10-0 1763-14-0 1867-82-9 2437-62-9 3570-39-6 3570-40-9 3761-64-6 4069-49-2 4482-83-1 5377-72-0 19489-48-6 20213-24-5 **30888-07-4** 32190-32-2

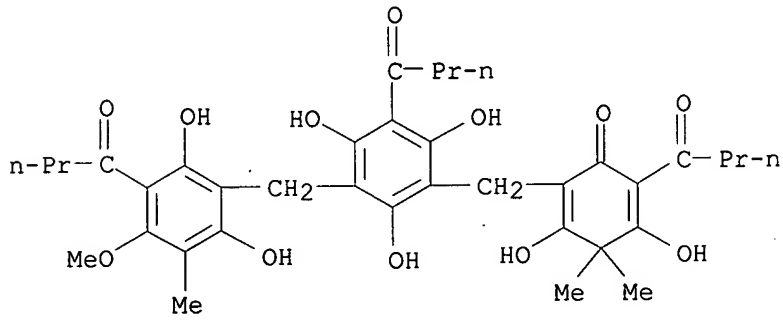
RL: ANT (Analyte); ANST (Analytical study)
(chromatog. of)
IT **30888-07-4**
RL: ANT (Analyte); ANST (Analytical study)
(chromatog. of)
RN 30888-07-4 HCA
CN 2,5-Cyclohexadien-1-one, 2-[[3-[[2,4-dihydroxy-6-methoxy-5-methyl-3-(1-oxobutyl)phenyl]methyl]-2,4,6-trihydroxy-5-(1-oxobutyl)phenyl]methyl]-3,5-dihydroxy-4,4-dimethyl-6-(1-oxobutyl)- (9CI) (CA INDEX NAME)



L48 ANSWER 68 OF 73 HCA COPYRIGHT 2003 ACS on STN
74:38420 Trisparaaspidin, a new phloroglucide from the fern Dryopteris remota. Widen, Carl J.; Von Euw, J.; Reichstein, T. (Abt. Pharmakog., Univ. Helsinki, Helsinki, Finland). Helvetica Chimica Acta, 53(8), 2176-96 (German) **1970**. CODEN: HCACAV. ISSN: 0018-019X.
GI For diagram(s), see printed CA Issue.
AB The structure was given for trisparaaspidin, C36H44O12, (I). Reductive cleavage of I gave aspidinol, butyrylphloroglucinol, 2-butyryl-4-methylphlorogluci-nol, and butyrylfilicic acid.
CC 2 (General Biochemistry)
IT **30888-07-4**
RL: BIOL (Biological study)
(a new phoroglucide)
IT 114-42-1 114-43-2 478-48-8 519-40-4 584-28-1 1509-06-4 2437-62-9 3570-35-2 4133-77-1 4482-83-1 20213-24-5
30880-00-3
RL: PRP (Properties)
(properties of)
IT **30888-07-4**
RL: BIOL (Biological study)
(a new phoroglucide)
RN 30888-07-4 HCA
CN 2,5-Cyclohexadien-1-one, 2-[[3-[[2,4-dihydroxy-6-methoxy-5-methyl-3-(1-oxobutyl)phenyl]methyl]-2,4,6-trihydroxy-5-(1-oxobutyl)phenyl]methyl]-3,5-dihydroxy-4,4-dimethyl-6-(1-oxobutyl)- (9CI) (CA INDEX NAME)



IT **30880-00-3**
RL: PRP (Properties)
(properties of)
RN 30880-00-3 HCA
CN 2,5-Cyclohexadien-1-one, 2-[[3-[[2,6-dihydroxy-4-methoxy-3-methyl-5-(1-oxobutyl)phenyl]methyl]-2,4,6-trihydroxy-5-(1-oxobutyl)phenyl]methyl]-3,5-dihydroxy-4,4-dimethyl-6-(1-oxobutyl)- (9CI) (CA INDEX NAME)

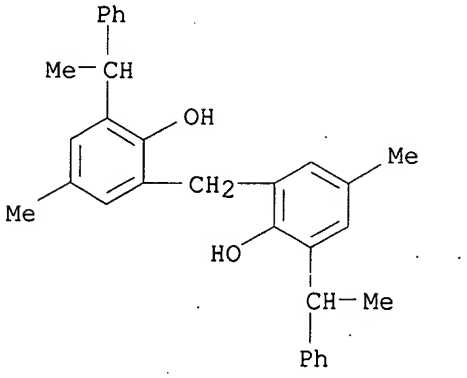


L48 ANSWER 69 OF 73 HCA COPYRIGHT 2003 ACS on STN
72:44560 Thiodipropionates and phenolic stabilized polyolefin compositions. Tholstrup, Clarence E. (Eastman Kodak Co.). U.S. US 3487044 **19691230**, 6 pp. (English). CODEN: USXXAM. APPLICATION: US 1968-761825 19680923.

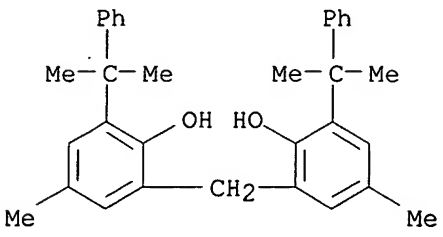
AB Dilauryl 3,3'-thiodipropionate (I) or a similar 3,3'-thiodipropionic acid diester is used with 4,4'-butylidenebis(3-methyl-6-tert-butylphenol) (II) or a similar bisphenol as a synergistic stabilizer compn. which provides much better heat stability and oxidn. stability, compared with either component used alone, for polyethylene, polypropylene (III), and other poly-a-olefins. Thus, III contg. 0.1% I and 0.05% II was stable (resisted peroxide formation) for 200 hr at 160.degree., compared with only 0.2, 2, and 3 hr, resp., for III samples contg. no stabilizer, 0.1% I, and 0.05% II.

IC C08F
NCL 260045850
CC 36 (Plastics Manufacture and Processing)
IT 85-60-9 2467-25-6 10401-03-3 14020-52-1 19072-87-8 26292-64-8 26292-65-9 26292-66-0 26292-67-1 **26292-69-3** 26292-70-6 26292-71-7 26292-73-9 26383-09-5 26383-10-8 26593-45-3
RL: USES (Uses)
(stabilizers, contg. thiodipropionic acid esters, for olefin polymers)
IT **26292-69-3**
RL: USES (Uses)

(stabilizers, contg. thiodipropionic acid esters, for olefin polymers)
RN 26292-69-3 HCA
CN Phenol, 2,2'-methylenebis[4-methyl-6-(1-phenylethyl)- (9CI) (CA INDEX NAME)



L48 ANSWER 70 OF 73 HCA COPYRIGHT 2003 ACS on STN
63:54414 Original Reference No. 63:9870f-g Bis[2-hydroxy-3-(.alpha.,.alpha.-dimethylbenzyl) - 5 - methylphenyl] methane. (United States Rubber Co.). NL 6411413 **19650412**, 8 pp. (Unavailable). PRIORITY: US 19631010.
AB To a stirred mixt. of 1.08 g. p-cresol and 54 g. BF3 etherate was added 1.18 g. PhMeC:CH2 at a rate sufficient to keep the reaction temp. at 50.degree., and stirring continued for 2 hrs. at 50.degree.. Anhyd. NH3 was passed through the mixt., the pptd. BF3-NH3 filtered off and the filtrate distd. at 10 mm. until the temp. of the vapors reached 180.degree.. The residue was distd. through a column at 1 mm. and 0.806 g. 4,2-Me(PhMe2C)C6H3OH (I), collected at 147-51.degree.. A mixt. of 226 g. I, 15.8 g. paraformaldehyde, 4.5 g. Bu phosphate, and 100 ml. benzene was refluxed for 20 hrs. with azeotropic removal of H2O, evapd., and 3 g. propene oxide added to give 231 g. I; m. 141-3.degree. (EtOH). The product was used as a stabilizer for polypropylene and lubricants.
IC C07C
CC 35 (Noncondensed Aromatic Compounds)
IT 101-79-1, Aniline, p-(p-chlorophenoxy)- 139-59-3, Aniline, p-phenoxy- 2675-76-5, m-Cymen-4-ol, 8-phenyl- **2933-90-6**, m-Cymen-4-ol, 5,5'-methylenebis[8-phenyl-
(prepn. of)
IT **2933-90-6**, m-Cymen-4-ol, 5,5'-methylenebis[8-phenyl-
(prepn. of)
RN 2933-90-6 HCA
CN Phenol, 2,2'-methylenebis[4-methyl-6-(1-methyl-1-phenylethyl)- (9CI) (CA INDEX NAME)



L48 ANSWER 71 OF 73 HCA COPYRIGHT 2003 ACS on STN
63:54413 Original Reference No. 63:9870e-f Tertiary alkylphenols. (Stamicarbon N.V.). NL 296062 **19650510**, 4 pp. (Unavailable). APPLICATION: NL 19630731.

AB The title compds. were prepd. by adding an alkene contg. a tertiary alkyl group to a phenol having a free 2- or (and) 4-position in the presence of FeCl3 or FeBr3 and a tertiary alkyl bromide. Thus, Me2C:CH2 was passed 70 min. at 100.degree. (36 l./hr.) through 300 g. PhOH contg. 0.01 g. FeBr3 and 0.5 g. tert-BuBr to give 54% conversion of PhOH to a mixt. of 88% 4-tert-BuC6H4OH and 7% 2-tert-BuC6H4OH.

IC C07C

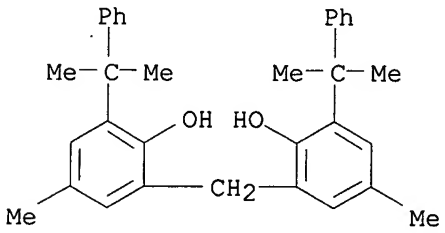
CC 35 (Noncondensed Aromatic Compounds)

IT 98-27-1, o-Cresol, 4-tert-butyl- **2933-90-6**, m-Cymen-4-ol, 5,5'-methylenebis[8-phenyl- 14938-35-3, Phenol, p-pentyl- 31216-00-9, Phenol, tert-butyl-2-chloro-
(prepn. of)

IT **2933-90-6**, m-Cymen-4-ol, 5,5'-methylenebis[8-phenyl-
(prepn. of)

RN 2933-90-6 HCA

CN Phenol, 2,2'-methylenebis[4-methyl-6-(1-methyl-1-phenylethyl)- (9CI) (CA INDEX NAME)



L48 ANSWER 72 OF 73 HCA COPYRIGHT 2003 ACS on STN
63:30764 Original Reference No. 63:5432f-h Bis[2-hydroxy-3-(.alpha.-methylxylyl)-5-methylphenyl]methane as stabilizing agent for lubricants. (United States Rubber Co.). NL 6411869 **19650412**, 6 pp. (Unavailable). PRIORITY: US 19631010.

AB The stabilizer was prepd. by refluxing 2 moles of 2-(.alpha.-methylxylyl)-p-cresol (I) with 1 mole of paraformaldehyde and 9 g. butylphosphoric acid ester in 100 ml. C6H6 for 20 hrs. at 80.degree. while removing H2O. C6H6 was evapd. and 6 g. propylene oxide added to deactivate the catalyst to give 461 g. of the title compd. I was prepd. by reaction of p-cresol with vinyltoluene in the presence of a Friedel-Crafts catalyst. Lubricating oils and greases are stabilized by adding 0.1-2% and 0.1-3%, resp., of the stabilizer. Com. lubricating oil based on petroleum contg. 0.3% stabilizer was tested according to the ASTM-943 oxidn. method for turbine oils. Oil (300 ml.) and 60 ml. distd. H2O were kept at 95.degree. by water cooling. Cu and Fe spirals were put in the oil, while O was passed through the oil at 3 l./hr. The point at which the acid no. reached 2 or sludge formed was reached by the oil without stabilizer in 7 days or by the oil with stabilizer in 80 days.

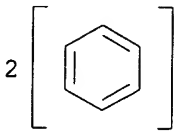
IC C07C

CC 27 (Petroleum and Petroleum Derivatives)

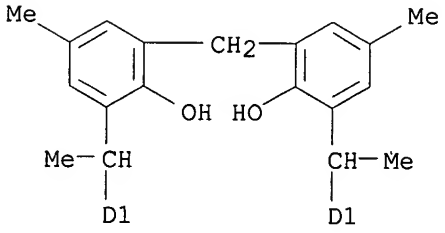
IT **31307-81-0**, p-Cresol, 2,2'-methylenebis[6-(ar,.alpha.-dimethylbenzyl)-
(as lubricant antioxidant)

IT **31307-81-0**, p-Cresol, 2,2'-methylenebis[6-(ar,.alpha.-dimethylbenzyl)-
(as lubricant antioxidant)

RN 31307-81-0 HCA
CN Phenol, 2,2'-methylenebis[4-methyl-6-[1-(methylphenyl)ethyl]- (9CI) (CA INDEX NAME)



2 (D1—Me)



L48 ANSWER 73 OF 73 HCA COPYRIGHT 2003 ACS on STN
60:82607 Original Reference No. 60:14419e-h,14420a-c Trisaspidin, trisdesaspidin, and trisflavaspidic acid, three new three-ring phloroglucinol derivatives from Dryopteris austriaca. Penttila, Aneri; Sundman, Jacobus (Medica Ltd., Helsinki). Acta Chemica Scandinavica, 17(9), 2361-9 (English) **1963**. CODEN: ACHSE7. ISSN: 0904-213X.
GI For diagram(s), see printed CA Issue.
AB Filixic acid BBB (I) and 3 other new phloroglucinol derivs. have been isolated from D. austriaca. On the basis of elemental analysis and alk. degradation their structures have been resolved. Because the 3 new compds. can be derived from the two-ringed compds. aspidin (II), desaspidin (III), and flavaspidic acid (IV) by the insertion of a butyrylphloroglucinol unit, they have been named trisaspidin (V), trisdesaspidin (VI), and trisflavaspidic acid (VII), resp. The residues for the tech. isolation of III and IV were used as sources of the new compds. The dried residue after isolation of III was dissolved in HOAc, and after some weeks the ppt. was filtered off. This material was chromatographed on silica gel to give I and V. Rechromatography gave V, m. 156-9.degree.. To 0.05 g. V in 20 ml. 5% NaOH was added 0.1 g. Zn dust, and the mixt. kept 5 min. on a steam bath. Paper chromatography of the product on buffered paper showed the presence of .psi.-aspidinol (VIII) and butyrylfilicinic acid (IX). On unbuffered papers, using 10:10:1 Tetralin-HOAc-H2O, butyrylphloroglucinol (X) and butyryl-3-methylphloroglucinol (XI) were identified. IX (22.4 g.) and 19.6 g. X in 1500 ml. 1% KOH was treated with 7.5 ml. 40% HCHO 1 min. at room temp. to give XII, m. 119-21.degree.. XII (0.864 g.) in 30 ml. 1% KOH was treated with 1.344 g. VIII in 50 ml. 1% KOH, followed by 3 ml. 40% HCHO 1 min. at room temp. to give V, m. 155-8.degree. (acetone-MeOH), and VI, m. 148-52.degree.. VI was hydrolyzed to give IX, X, and XI; at pH 8.8 2 purple spots due to desaspidinol (XIII) and aspidinol (XIV) appeared. XII (0.864 g.) in 30 ml. 1% KOH was mixed with 0.630 g. XIII in KOH, 1.9 ml. 4% HCHO added, and the mixt. kept 1 min. at room temp. to

give VI, 142-6.degree. (cyclohexanehexane). VII was isolated from the residual MeOH soln. obtained ofter the tech. sepn. of flavaspidic acid. Addn. of dil. HCl pptd. phloroglucinol derivs. and these were dried and dissolved in HOAc. After a few days at room temp. the filtrate deposited VII, m. 169-74.degree. (AcOH). VII hydrolyzed gave IX, X, and XI. X (1.96 g.) and 2.1 g. XI in 150 ml. 1% KOH was treated with 0.75 ml. 40% HCHO 1 min., 2.24 g. IX added in 50 ml. 1% KOH followed by 0.75 ml. 40% HCHO, and the mixt. kept 1 min. gave III, m. 168-74.degree..

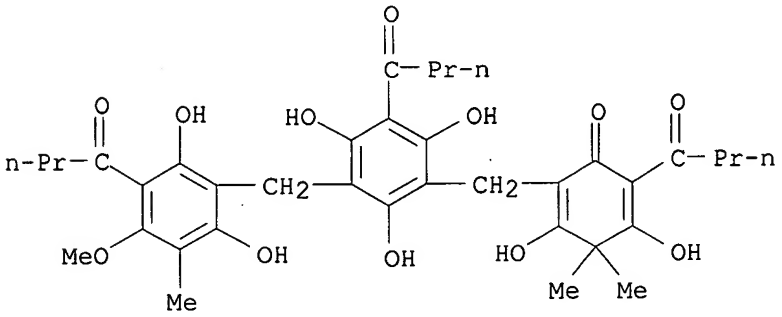
CC 35 (Noncondensed Aromatic Compounds)

IT 20213-24-5, Trisdesaspidin **30880-00-3**, Trisaspidin **36253-23-3**, Trisflavaspidic acid
(from Dryopteris austriaca, structure of)

IT **30880-00-3**, Trisaspidin **36253-23-3**, Trisflavaspidic acid
(from Dryopteris austriaca, structure of)

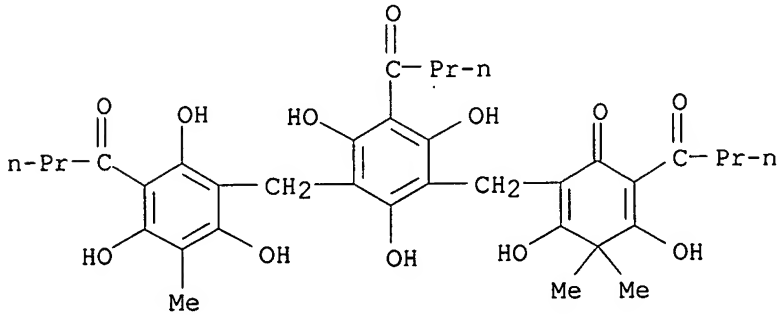
RN 30880-00-3 HCA

CN 2,5-Cyclohexadien-1-one, 2-[[3-[[2,6-dihydroxy-4-methoxy-3-methyl-5-(1-oxobutyl)phenyl]methyl]-2,4,6-trihydroxy-5-(1-oxobutyl)phenyl]methyl]-3,5-dihydroxy-4,4-dimethyl-6-(1-oxobutyl)- (9CI) (CA INDEX NAME)



RN 36253-23-3 HCA

CN 2,5-Cyclohexadien-1-one, 3,5-dihydroxy-4,4-dimethyl-2-(1-oxobutyl)-6-[[2,4,6-trihydroxy-3-(1-oxobutyl)-5-[[2,4,6-trihydroxy-3-methyl-5-(1-oxobutyl)phenyl]methyl]phenyl]methyl]- (9CI) (CA INDEX NAME)



=> d L45 1-3 cbib abs hitstr

L45 ANSWER 1 OF 3 HCA COPYRIGHT 2003 ACS on STN

86:30443 Improved **light sensitivity** of photopolymerizing compositions from cellulose acetate succinate. Ratovskaya, A. A.; Shibanov, V. V.; Vishnyakova, R. S.; Milyashkevich, P. E.; Shpichka, S. G. (Ukr. Nauchno-Issled. Inst. Poligr. Prom., Lvov, USSR). Poligraficheskaya Promyshlennost: Referativnaya Informatsiya (7), 37-42 (Russian)

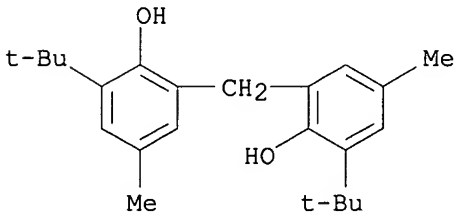
1976. CODEN: PPRIDA. ISSN: 0321-4281.

AB The **light sensitivity** of cellulose acetate succinate (I) [9032-35-3] photopolymerizable compns. was increased by adding amine compds., such as triethanolamine trimethacrylate (II) [13884-43-0], which accelerated the photocrosslinking. II accelerated the crosslinking via exiplex formation and chain transfer. It was a more effective crosslinking agent than triethylene glycol dimethacrylate, did not require a catalyst, and had enhanced effectiveness in the presence of triethylene glycol plasticizer. The **light sensitivity** of I compns. also depended on the nature of the chain termination inhibitor. The most suitable inhibitor was 2-naphthol [135-19-3], which sensitized the photocrosslinking and at the same time exerted a heat-stabilizing influence. A postpolymn. effect was obsd. in the compns.

IT **119-47-1**
RL: USES (Uses)
(cellulose acetate succinate compns. contg., photopolymn. rate in relation to)

RN 119-47-1 HCA

CN Phenol, 2,2'-methylenebis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)



L45 ANSWER 2 OF 3 HCA COPYRIGHT 2003 ACS on STN

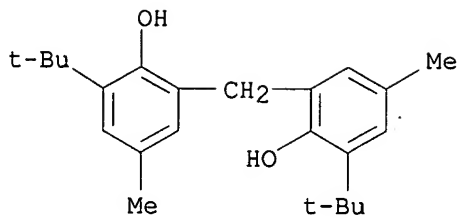
84:136495 Effect of inhibitors on the photopolymerization rate of a **photosensitive** system. Ratovskaya, A.; Shibanov, V.; Milyashkevich, P.; Vishnyakova, R. (Lvov, USSR). Poligrafiya (1), 21-2 (Russian) **1976**. CODEN: PLGFAH. ISSN: 0032-2717.

AB The most effective inhibitor for thermopolymn. of compns. contg. cellulose acetate succinate (I) [9032-35-3] is 2-naphthol (II) [135-19-3] which has a sensitizing effect on photopolymn. with a simultaneous thermal stabilization of the system. Compns. contg. I, triethylene glycol dimethacrylate [109-16-0], ethers of polyethylene glycol [25322-68-3] and C7-C9 alcs. and .alpha.-chloroanthraquinone [82-44-0] as initiator were examd. in the presence of various inhibitors. Hydroquinone [123-31-9], Ionol [128-37-0], diphenyloldimethylmethane [80-05-7], 2246 [**119-47-1**], o-toluidine [95-53-4] and 2 stabilizing radicals decreased the polymn. rate of the compn., whereas II and dinitrobenzene [25154-54-5] had sensitizing effect on photopolymn. of the I-contg. compn. Thermal stability of polymer films examd. 30 min at 100.degree., showed a dependence of the gel fraction yield on the nature of the inhibitor.

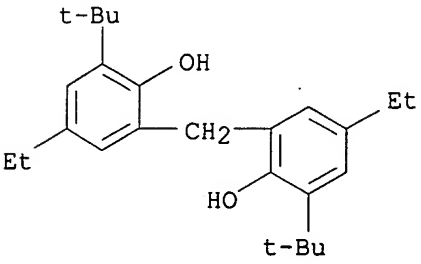
IT **119-47-1**
RL: USES (Uses)
(inhibitors, photopolymn. of **light-sensitive** compns. in presence of)

RN 119-47-1 HCA

CN Phenol, 2,2'-methylenebis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)



L45 ANSWER 3 OF 3 HCA COPYRIGHT 2003 ACS on STN
82:44397 **Light-sensitive** resin compositions. Tsukada, Katsushige; Isobe, Asao; Hayashi, Nobuyuki; Abo, Masahiro; Ogawa, Ken (Hitachi Chemical Co., Ltd.). Ger. Offen. DE 2406400 **19740905**, 20 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1974-2406400 19740211.
AB **Light-sensitive** resin compns. were manufd. by compounding photopolymerizable glycol acrylates with sensitizers, epoxy resins, diamine or diacid epoxy curing agents, hardening accelerator, and polyacrylates or allyl polymers and were useful for printed circuits and in precision metal work. Thus, a mixt. of methacrylic acid-methyl methacrylate copolymer [25086-15-1] 40, pentaerythritol triacrylate [3524-68-3] 30, ECN 1280 [51875-34-4] epoxy resin 25, dicyandiamide [461-58-5] 1.5, benzophenone [119-61-9] 2.7, Michler's ketone [90-94-8] 0.3, p-methoxyphenol [150-76-5] 0.6, and methyl ethyl ketone 200 parts was coated on Cu-plated laminate, dried for 10 min at room temp. then for 10 min at 80.degree. to give a 20 .mu. **light sensitive** coat which overlaid with 25 .mu. transparent poly(ethylene terephthalate) film, exposed to 3 kW super high pressure Hg lamp with 4,000 .mu.W/cm2 intensity for 60 sec from negative mask, and developed with MeCCl3 for 1 min to give protective film applicable to etching, galvanizing or strong alkaline nonelectrolytic chem. plating.
IT **88-24-4**
RL: USES (Uses)
(epoxy resins contg. acrylates and, **light-sensitive**)
RN 88-24-4 HCA
CN Phenol, 2,2'-methylenebis[6-(1,1-dimethylethyl)-4-ethyl- (9CI) (CA INDEX NAME)



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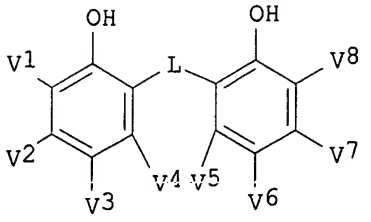
L49 ANSWER 1 OF 258 HCA COPYRIGHT 2003 ACS on STN
135:203057 Photothermographic material containing phenolic compound as reducing agent and coupler. Ooya, Toyohisa; Watanabe, Katsuyuki; Takasaki, Suguru; Sakai, Minoru (Fuji Photo Film Co., Ltd., Japan). Jpn.

Kokai Tokkyo Koho JP 2001235833 A2 20010831, 58 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-21209 20000131. PRIORITY: JP 1999-90208 19990330; JP 1999-358136 19991216.

GI



I

AB The material has a photothermog. layer on a support, contg. at least a **photosensitive** Ag halide, a reducible Ag salt, a phenolic compd. I (V1-8 = H, substituent; L = CHV9, S; V9 = H, substituent), a binder, and a coupler. The material shows high sensitivity, gives high Dmax images without fog, and is suited for photomech. process.

IC ICM G03C001-498
ICS G03C001-498

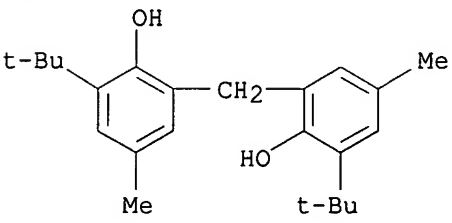
CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT **119-47-1** 7292-14-0 33145-10-7
RL: DEV (Device component use); USES (Uses)
(photothermog. material contg. phenolic compd. as reducing agent and coupler)

IT **119-47-1**
RL: DEV (Device component use); USES (Uses)
(photothermog. material contg. phenolic compd. as reducing agent and coupler)

RN 119-47-1 HCA

CN Phenol, 2,2'-methylenebis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)



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L49 ANSWER 10 OF 258 HCA COPYRIGHT 2003 ACS on STN

131:122903 Electrophotographic photoreceptor and image-forming apparatus using same. Kamisaka, Tomosumi; Kozeki, Kazuhiro; Kojima, Fumio (Fuji Xerox Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 11184106 A2 **19990709** Heisei, 45 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-349853 19971218.

AB The title photoreceptor comprises a conductive support coated with a **photosensitive** layer contg. a compd. GDF (G = inorg. glassy network subgroup; D = flexible org. subunit; F = photoconductive subunit), a F-contg. compd., and an antioxidant. The compd. GDF may be an arylamine with alkoxysilyl group. An image-forming app. is also claimed, including the photoreceptor, a charging means using a contact charging method , and a mech. cleaning means. The photoreceptor shows improved environmental stability, photoconductive properties, mech. strength, and resistance to oxidizing gases.

IC ICM G03G005-05
ICS G03G005-06; G03G015-02

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT Polysiloxanes, preparation
RL: DEV (Device component use); MOA (Modifier or additive use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(X 40-2239, reaction products with alkoxysilane with arylamino group., silane coupling agent; electrophotog. photoreceptor with **photosensitive** layer contg. arylamine compd. with alkoxysilyl group, fluorine compd., and antioxidant)

IT Antioxidants
Electrophotographic photoconductors (photoreceptors)
(electrophotog. photoreceptor with **photosensitive** layer contg. arylamine compd. with alkoxysilyl group, fluorine compd., and antioxidant)

IT 19717-79-4, Chlorogallium phthalocyanine 63371-84-6, Hydroxygallium phthalocyanine
RL: DEV (Device component use); USES (Uses)
(charge-generating agent; electrophotog. photoreceptor with **photosensitive** layer contg. arylamine compd. with alkoxysilyl group, fluorine compd., and antioxidant)

IT 65181-78-4 161114-55-2
RL: DEV (Device component use); USES (Uses)
(charge-transporting agent; electrophotog. photoreceptor with **photosensitive** layer contg. arylamine compd. with alkoxysilyl group, fluorine compd., and antioxidant)

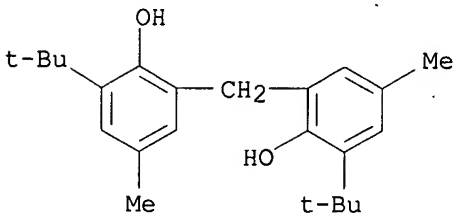
IT **119-47-1**, Sumilizer MDP S 83048-65-1D, KBM 7803, reaction products with alkoxysilane with arylamino group, phenyltriethoxysilane, and siloxane
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(electrophotog. photoreceptor with **photosensitive** layer contg. arylamine compd. with alkoxysilyl group, fluorine compd., and antioxidant)

IT 780-69-8DP, Phenyltriethoxysilane, reaction products with alkoxysilane with arylamino group, silane coupling agent, and siloxane 205654-40-6DP, reaction products with phenyltriethoxysilane, silane coupling agent, and siloxane 214332-16-8DP, reaction products with phenyltriethoxysilane, silane coupling agent, and siloxane 220776-98-7DP, reaction products with phenyltriethoxysilane, silane coupling agent, and siloxane 220777-00-4DP, reaction products with phenyltriethoxysilane, silane coupling agent, and siloxane 230951-87-8DP, reaction products with phenyltriethoxysilane, silane coupling agent, and siloxane 230951-88-9DP, reaction products with phenyltriethoxysilane, silane coupling agent, and siloxane 233281-19-1DP, reaction products with phenyltriethoxysilane, silane coupling agent, and siloxane 233281-20-4DP, reaction products with phenyltriethoxysilane, silane coupling agent, and siloxane 233281-21-5DP, reaction products with phenyltriethoxysilane, silane coupling agent, and siloxane 233281-22-6DP, reaction products with phenyltriethoxysilane, silane

coupling agent, and siloxane 233281-23-7DP, reaction products with phenyltriethoxysilane, silane coupling agent, and siloxane 233281-24-8DP, reaction products with phenyltriethoxysilane, silane coupling agent, and siloxane
RL: DEV (Device component use); MOA (Modifier or additive use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(electrophotog. photoreceptor with **photosensitive** layer contg. arylamine compd. with alkoxysilyl group, fluorine compd., and antioxidant)

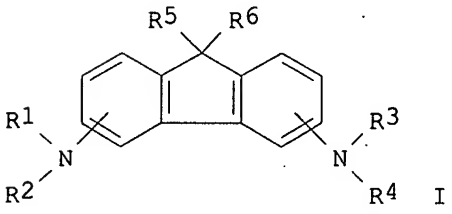
IT **119-47-1**, Sumilizer MDP S
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(electrophotog. photoreceptor with **photosensitive** layer contg. arylamine compd. with alkoxysilyl group, fluorine compd., and antioxidant)

RN 119-47-1 HCA
CN Phenol, 2,2'-methylenebis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)



L49 ANSWER 20 OF 258 HCA COPYRIGHT 2003 ACS on STN
128:198615 Electrophotographic **photosensitive** member and process cartridge and electrophotographic apparatus utilizing the same. Suzuki, Koichi; Kikuchi, Toshihiro; Nakamura, Kazushige; Kanemaru, Tetsuro; Nakata, Kouichi (Canon K. K., Japan). Eur. Pat. Appl. EP 823668 A1 **19980211**, 40 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI. (English). CODEN: EPXXDW. APPLICATION: EP 1997-306019 19970807. PRIORITY: JP 1996-209502 19960808.

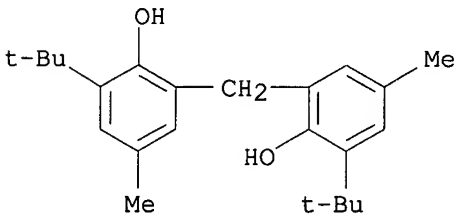
GI



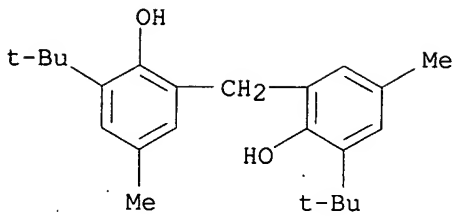
I

AB An electrophotog. **photosensitive** member has a support and a **photosensitive** layer provided thereon. The **photosensitive** layer contains a hindered phenol compd. and a fluorene compd. represented by the formula I (R1-4 = substituted or unsubstituted aryl and R5, R6 = H, substituted or unsubstituted alkyl, substituted or unsubstituted aryl, or substituted or unsubstituted aralkyl).

IC ICM G03G005-06
ICS G03G005-05
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 85-60-9 **119-47-1** 128-37-0, uses 1709-70-2 2082-79-3 2872-08-4 4130-42-1 5384-21-4 5530-30-3 5892-47-7 22354-51-4 72044-23-6 102364-33-0 203459-16-9 203459-17-0 203459-18-1 203459-19-2
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(electrophotog photoreceptors contg. fluorene derivs. and)
IT **119-47-1**
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(electrophotog photoreceptors contg. fluorene derivs. and)
RN 119-47-1 HCA
CN Phenol, 2,2'-methylenebis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)



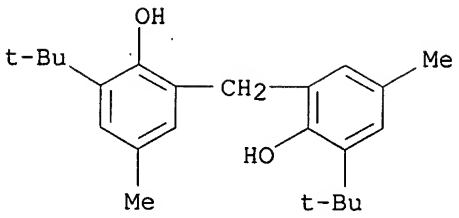
L49 ANSWER 30 OF 258 HCA COPYRIGHT 2003 ACS on STN
124:160069 Ratio of organic and inorganic salts of silver in heat-developable photographic materials. Velinson, P. Z.; Gaft, S. I.; Serebryanyi, B. M.; Krasnyi-Admoni, L. V.; Zavlin, P. M. (Aktsion. Obshchestvo "Pozitiv", St. Petersburg, Russia). Zhurnal Nauchnoi i Prikladnoi Fotografii, 40(6), 38-41 (Russian) **1995**. CODEN: ZNPFEK. ISSN: 0869-6144. Publisher: Nauka.
AB Heat-developable photog. papers with the optimal KBr:Ag stearate ratio of 1:4 show the highest **photosensitivity** and good storage quality.
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT **119-47-1**, 2,2'-Methylene-bis(4-methyl-6-tert-butylphenol 3507-99-1, Silver stearate 7785-23-1, Silver bromide
RL: TEM (Technical or engineered material use); USES (Uses)
(effect of ration of org. and inorg. silver salts in heat-developable photog. materials)
IT **119-47-1**, 2,2'-Methylene-bis(4-methyl-6-tert-butylphenol
RL: TEM (Technical or engineered material use); USES (Uses)
(effect of ration of org. and inorg. silver salts in heat-developable photog. materials)
RN 119-47-1 HCA
CN Phenol, 2,2'-methylenebis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)



L49 ANSWER 40 OF 258 HCA COPYRIGHT 2003 ACS on STN
123:22024 Silver halide color photographic materials. Obayashi, Keiji; Morigaki, Masakazu (Fuji Photo Film Co Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 07020608 A2 **19950124** Heisei, 43 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1993-164567 19930702.
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title photog. materials comprise a support coated with red-, green-, and blue-sensitive Ag halide emulsion layers and colloidal Ag-contg. non-**photosensitive** layers contg. a phenolic compd. I [R1-5 = H, alkyl, XR0, 2 groups on the ortho positions with each other in R1-5 may link to form a chroman ring; X = CR6R7 (R6, R7 = H, alkyl), O, S; R0 = hydroxyphenyl group, but when X = CR6R7, R6 = R7 = alkyl, and R1 = R5 = XR0, R0 may be an alkyl, R3 .noteq. H and .gtoreq.1 of R1-5 is XR0 or the group required to form a chroman ring, when R3 = XR0 and R0 = hydroxyphenyl group, both R1 and R5 are not H]. The colloidal Ag-contg. layer may contain II (X = H, OH, amino, sulfonamide; R11-12 = same as X, alkyl, aryl, amide, ureido, alkylthio, arylthio, alkoxy, aryloxy, R11 and R12 may form a ring; when X = H, R11 = OH, amino, sulfonamide; R13 = H, halo, sulfo, COOH, alkyl, acyl, oxycarbonyl, carbamoyl, sulfonyl, sulfamoyl, mol. wt. of II .gtoreq.300). The materials show good color reproducibility and improved storage stability even when using colloidal Ag. Thus, a color photog. film was prepd. by using a yellow filter layer contg. colloidal Ag, III, and IV.
IC ICM G03C001-825
ICS G03C001-047; G03C007-392
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 90-68-6 96-65-1 **119-47-1** 903-19-5 10191-41-0 20047-03-4 35958-30-6 54637-02-4 69963-81-1 77565-09-4 106135-09-5 163674-00-8
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(photog. film with nonphotosensitive layer contg. colloidal silver and phenolic compd.)
IT **119-47-1**
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(photog. film with nonphotosensitive layer contg. colloidal silver and phenolic compd.)
RN 119-47-1 HCA
CN Phenol, 2,2'-methylenebis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)



L49 ANSWER 50 OF 258 HCA COPYRIGHT 2003 ACS on STN
119:214066 Positive-acting photothermographic materials. Ellis, Richard J. (Minnesota Mining and Mfg. Co., USA). Eur. Pat. Appl. EP 537975 A1 **19930421**, 31 pp. DESIGNATED STATES: R: DE, FR, GB, IT. (English). CODEN: EPXXDW. APPLICATION: EP 1992-309297 19921013. PRIORITY: GB 1991-21795 19911014.

AB Pos.-acting photothermog. elements suitable in graphic arts and medical imaging comprises a **photosensitive** medium comprising a reducible silver source, a photo-acid generator, a binder and a reducing system for silver ion comprising a reducing agent for silver ion in which exposure of the element to actinic radiation causes the prodn. of acidic species in the exposed regions which inhibit redn. of the silver source by the reducing system. The reducing agent may be phenidone, hydroquinone, catechol, or a hindered phenol. The material has improved thermal stability.

IC ICM G03C001-498
ICS G03C001-675; G03C001-52

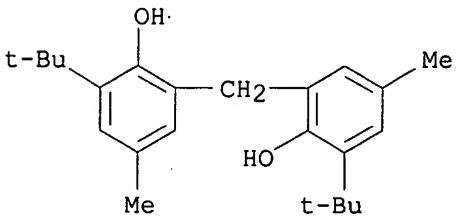
CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 92-43-3 **119-47-1** 120-80-9, Catechol, properties 123-31-9, Hydroquinone, properties 6766-56-9 10580-59-3 21335-48-8 150034-25-6
RL: USES (Uses)
(silver reducing agent in photothermog. compn.)

IT **119-47-1**
RL: USES (Uses)
(silver reducing agent in photothermog. compn.)

RN 119-47-1 HCA

CN Phenol, 2,2'-methylenebis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)



L49 ANSWER 60 OF 258 HCA COPYRIGHT 2003 ACS on STN
117:121480 Electrophotographic printing using polysilane and printing plate therefor. Fukui, Tetsuro; Katayama, Masato; Kondo, Yuji; Tanaka, Hiromi; Mori, Akihiro; Isaka, Kazuo (Canon K. K., Japan). Jpn. Kokai Tokkyo Koho JP 03287277 A2 **19911217** Heisei, 15 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1990-89401 19900403.

AB The title electrophotog. printing comprises the steps of: (2) imagewise-exposing and heating a printing plate which has a **photosensitive** layer contg. an org. Ag salt, Ag halide, and a reducing agent, a polysilane-contg. layer, and a charge-generating layer; (2) uniformly exposing the **photosensitive** layer; (3) elec. charging the polysilane-contg. layer; (4) applying a developer on the polysilane-contg. layer; and (5) transfering the developer on the polysilane-contg. layer onto a receptor material. The printing plate therefor was also claimed.

IC ICM G03G013-26
ICS B41M001-00

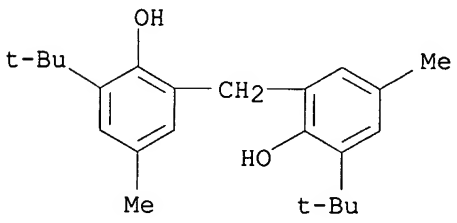
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT **119-47-1**, 2,2'-Methylene-bis(6-tert-butyl-4-methylphenol) 20690-84-0 79576-80-0 130000-18-9 140667-88-5
RL: USES (Uses)
(reducing agent, electrophotog. printing plate contg.)

IT **119-47-1**, 2,2'-Methylene-bis(6-tert-butyl-4-methylphenol)
RL: USES (Uses)
(reducing agent, electrophotog. printing plate contg.)

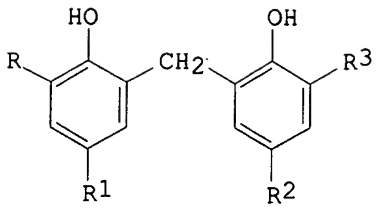
RN 119-47-1 HCA

CN Phenol, 2,2'-methylenebis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)

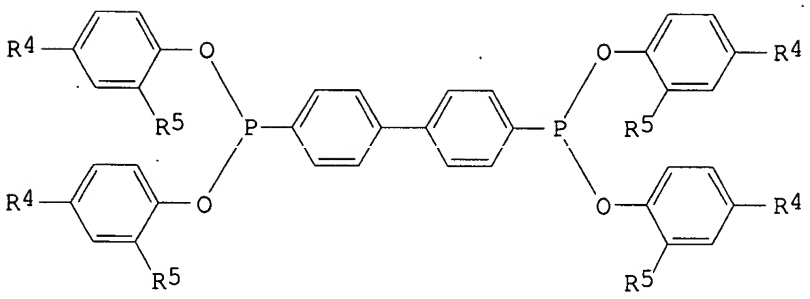


L49 ANSWER 70 OF 258 HCA COPYRIGHT 2003 ACS on STN
112:243064 Electrophotographic photoreceptor containing hindered bisphenol and organic phosphonite ester. Nakagawa, Masaru (Canon K. K., Japan). Jpn. Kokai Tokkyo Koho JP 01266548 A2 **19891024** Heisei, 11 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1988-95849 19880418.

GI



I



II

AB The title photoreceptor has, on an elec. conductive support, a **photosensitive** layer contg. org. photoconductive substances, a bisphenol compd. I (R, R3 = tert-Bu, CMe2Et; R1, R2 = H, C1-10 alkyl, C2-10 alkenyl), and an org. phosphonite II (R4, R5 = C1-10 alkyl, C2-10 alkenyl). The photoreceptor shows resistance against corona discharge-formed substances, e.g. O3, NOx, in repeating use. Thus, a nylon-undercoated Al cylinder was coated with a compn. contg. a charge-generating trisazo pigment and S-Lec BL-S [poly(vinyl butyral) resin] and overcoated with a compn. contg. a charge-transporting stilbene compd., Panlite L-1250 (polycarbonate resin), Sumilizer MDP-S, and IRGAFOS P-EPQFF to give the title photoreceptor.

IC ICM G03G005-05

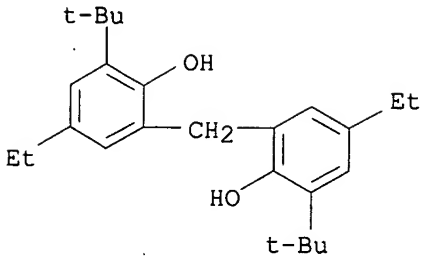
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT **88-24-4**, Antioxidant 425 **119-47-1**, Sumilizer MDP-S
127388-03-8 127388-04-9 127388-05-0 127388-06-1
RL: USES (Uses)
(electrophotog. photoconductor contg., with phosphonite ester, for repeating use, resistance against corona discharging-derived active compd. in)

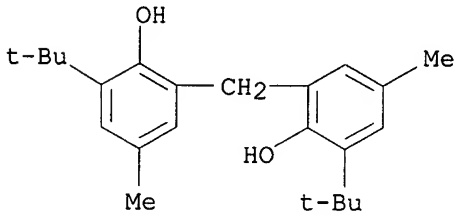
IT **88-24-4**, Antioxidant 425 **119-47-1**, Sumilizer MDP-S
RL: USES (Uses)
(electrophotog. photoconductor contg., with phosphonite ester, for repeating use, resistance against corona discharging-derived active compd. in)

RN 88-24-4 HCA

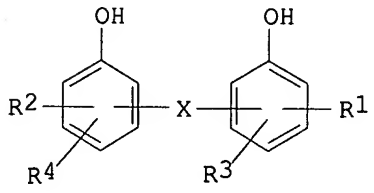
CN Phenol, 2,2'-methylenebis[6-(1,1-dimethylethyl)-4-ethyl- (9CI) (CA INDEX NAME)



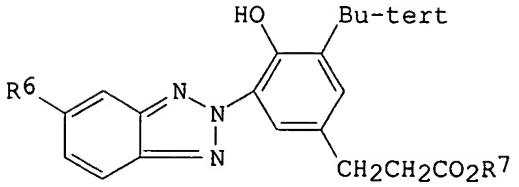
RN 119-47-1 HCA
CN Phenol, 2,2'-methylenebis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)



L49 ANSWER 80 OF 258 HCA COPYRIGHT 2003 ACS on STN
107:31129 Silver halide color photographic **photosensitive** materials. Nakamura, Shinichi; Ishikawa, Hisashi (Konishiroku Photo Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 61278854 A2 **19861209** Showa, 21 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1985-122244 19850604.
GI



I



II

AB The claimed color photog. materials contain a 3-anilino-4-(2-alkoxyarylthio)-5-pyrazolone type coupler, a compd. of the formula I [R1-R4 = C1-18 alkyl; total no. of C atoms in R1-R4 is .ltoreq.32; X = bond, O, S, SO2, (CHR5)n; R5 = H, C1-10 alkyl; n = 1-3], a compd. of the

formula II (R6 = H, Cl; R7 = C1-18 alkyl, C5-12 cycloalkyl), and a compd. of the formula R8OP(O)(OR10)OR9 (III; R8, R9, R10 = C.gtoreq.8 branched alkyl; total no. of C atoms in R8-R10 is 24-40). The **photosensitive** materials give stable magenta images with very few stains.

IC ICM G03C007-38
ICS G03C007-26

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

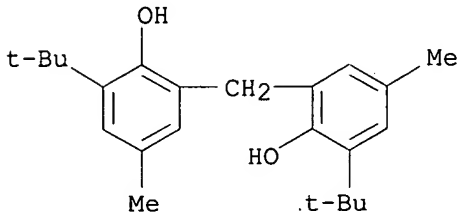
ST color photog **photosensitive** material; magenta coupler photog anilinopyrazolone; bisphenol photog stabilizer; phosphate ester solvent photog coupler

IT **119-47-1** 2872-08-4 4081-14-5
RL: USES (Uses)
(photog. dye image stabilizer)

IT **119-47-1**
RL: USES (Uses)
(photog. dye image stabilizer)

RN 119-47-1 HCA

CN Phenol, 2,2'-methylenebis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)



L49 ANSWER 90 OF 258 HCA COPYRIGHT 2003 ACS on STN

104:234243 Silver halide color photographic **photosensitive** materials. Nakamura, Shinichi; Ohayashi, Keiji (Konishiroku Photo Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 60247240 A2 **19851206** Showa, 27 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1984-103273 19840522.

GI For diagram(s), see printed CA Issue.

AB The claimed Ag halide color photog. **photosensitive** materials contain diffusion-resistant couplers, .gtoreq.1 ether selected from R(CR1R2)mO(CR3R4)nR5 [R,R5 = aryl; R1-R4 = H, alkyl, aryl; m, n = 1, 2] and R6OR7 (R6, R7 = alkyl, alkenyl), and .gtoreq.1 decoloration inhibitor selected from chroman derivs., spirochroman derivs., dihydroxybenzene derivs., and spiroindan derivs. The chroman derivs. are selected from compds. of the formula I [R8 = H, alkyl, alkenyl, cycloalkyl, heterocyclyl, trialkylsilyl, alkanesulfonyl, arylsulfonyl, COR12, SO2R12; R9, R10, R11 = H, alkyl, aryl, alkoxy, aryloxy, alkenyl; R12 = alkyl, alkoxy, aryl, aryloxy, alboxycarbonyl, aryloxycarbonyl; A = 5- or 6-membered ring, which may or may not be substituted). The spirochroman derivs. are selected from II (R13, R14 = H, alkyl, alkenyl, cycloalkyl, cycloalkyl, aryl, heterocyclyl, COR18, SO2R18, CONHR18; R15 = alkyl, alkenyl, aryl, alkoxy, aryloxy; R13R15 or R14R15 combination may complete a 5- to 7-membered ring; R16, R17 = H, halo alkyl, alkoxy, alkenyl, aryl, aryloxy; R18 = alkyl, aryl, alkoxy, aryloxy, alkoxycarbonyl, aryloxycarbonyl). The dihydroxybenzene derivs. are selected from III (R19, R20 = alkyl, alkenyl, cycloalkyl, aryl, trialkylsilyl, heterocyclyl; when OR19 and OR20 are at o-positions, then R19R20 in combination may form a 5- or 6-membered ring; R21-R24 = H, halo, alkyl, alkenyl, cycloalkyl,

aryl, acyl, acylamino, alkylamino, alkoxycarbonyl, sulfonamido; .gtoreq.1 of R21-R24 is a non-H substituent). The spiroindan derivs. are selected from IV (R25 = alkyl, alkenyl, aryl, heterocyclyl, COR29, SO2R29, CONHR29; adjacent R25 groups may combine to complete a 5- or 6-membered ring; R26 = H, alkyl, alkenyl; R27, R28 = H, halo, alkyl, alkenyl; R29 = alkyl, alkenyl, aryl).

IC ICM G03C007-26

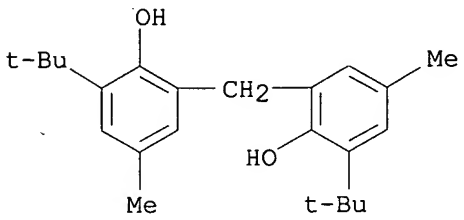
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 85-60-9 **119-47-1** 20195-51-1
RL: USES (Uses)
(color photog. materials contg., dye image stabilizers for)

IT **119-47-1**
RL: USES (Uses)
(color photog. materials contg., dye image stabilizers for)

RN 119-47-1 HCA

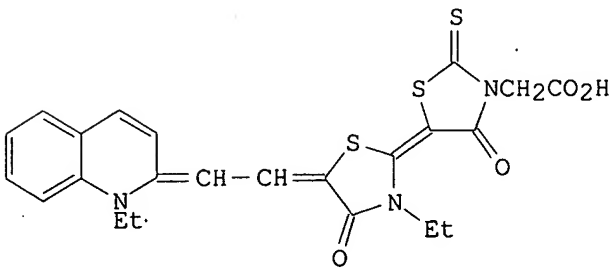
CN Phenol, 2,2'-methylenebis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)



L49 ANSWER 100 OF 258 HCA COPYRIGHT 2003 ACS on STN

102:229516 Thermally generated toning agent system for photothermographic imaging compositions. Gutman, Gustav (Minnesota Mining and Mfg. Co., USA). U.S. US 4510236 A **19850409**, 7 pp. (English). CODEN: USXXAM. APPLICATION: US 1983-563687 19831220.

GI

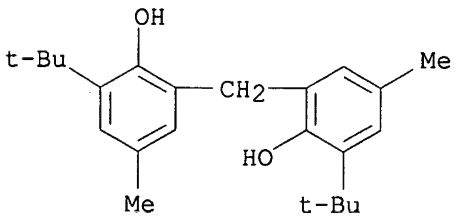


II

AB A photothermog. material is described which provides pure black tone images and has increased developing speed and excellent storage properties. The material contains .gtoreq.1 oxidizing agent, .gtoreq.1 **photosensitive** Ag halide, .gtoreq.1 reducing agent, toning agent precursor 2-(hydroxymethyl)-1-(2H)-phthalazinone (I), and a polycarboxylic acid deriv. to catalyze conversion of the precursor to a toning agent (phthalazinone) during the thermal development step. Thus, a

poly(ethylene terephthalate) support was coated with a compn. contg. Ag behenate, poly(vinyl butyral), 1-methyl-2-pyrrolidone, HgBr2, HBr, vinyl chloride-vinyl acetate polymer, 2,2'-methylenebis(4-methyl-6-tert-butyl)phenol, Victoria Pure Blue, dye II and solvents and overcoated with a compn. contg. I 2, phthalic acid 0.02 wt.%, vinyl chloride-vinyl acetate polymer binder and MeCOEt solvent. The obtained film was imagewise exposed and heated at 260.degree. for 20 s to give an image with Dmax 2.56, Dmin 0.16, .gamma. 56.5, and relative sensitivity 588 vs. 2.38, 0.14, 70.1 and 100, resp., for a phthalic acid free-control.

IC ICM G03C001-00
NCL 430619000
CC 74-9 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT **119-47-1** 2489-05-6 7789-47-1 10035-10-6, properties 33006-61-0 65722-01-2
RL: USES (Uses)
(photothermog. material contg. hydroxymethylphthalazinone as toning agent precursor and polycarboxylic acid catalyst and)
IT **119-47-1**
RL: USES (Uses)
(photothermog. material contg. hydroxymethylphthalazinone as toning agent precursor and polycarboxylic acid catalyst and)
RN 119-47-1 HCA
CN Phenol, 2,2'-methylenebis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)

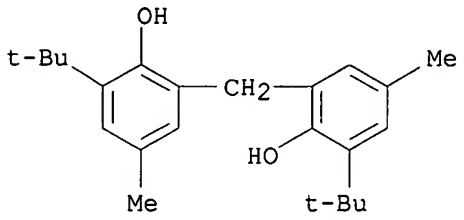


L49 ANSWER 110 OF 258 HCA COPYRIGHT 2003 ACS on STN
101:63662 Heat-resistant film photoresist laminates. (Japan Synthetic Rubber Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 58068740 A2 **19830423** Showa, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1981-168366 19811021.

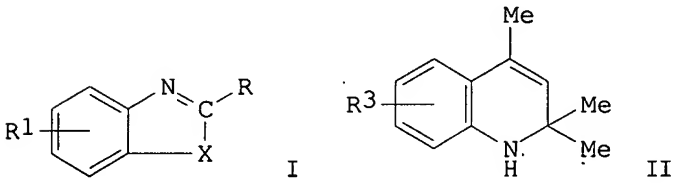
AB A heat-resistant laminated photoresist consists of a cyclized butadiene polymer lower layer and an upper layer resist contg. a homo- or copolymer of a monoolefin, a polyfunctional photopolymerizable compn. contg. .gtoreq.2 photopolymerizable double bonds within each mol., RR1R2N [R, R1, R2 = H, alkyl, alkylene ring produced in combination; R, R1, R2 may not be H simultaneous], and necessary amts. of photocrosslinking agents, **photosensitive**, and photopolymn. initiators. The photoresist serves as a solder resist useful in the electronic industry.

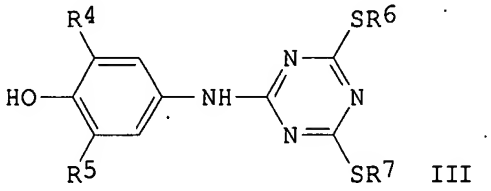
IC G03C001-00; C08F002-50; G03C001-68; G03C001-71
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 76
IT 84-54-8 96-69-5 102-82-9 **119-47-1** 124-09-4, uses and miscellaneous 366-18-7 1860-26-0 9011-14-7 54391-08-1 80491-83-4
RL: TEM (Technical or engineered material use); USES (Uses)
(photoresist contg., for electronics industry)
IT **119-47-1**
RL: TEM (Technical or engineered material use); USES (Uses)

(photoresist contg., for electronics industry)
RN 119-47-1 HCA
CN Phenol, 2,2'-methylenebis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)



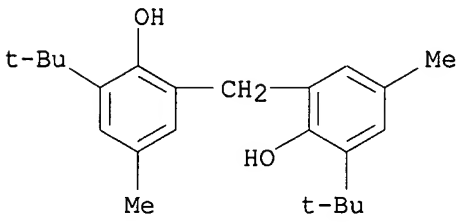
L49 ANSWER 120 OF 258 HCA COPYRIGHT 2003 ACS on STN
98:225295 Composition of photopolymers. (Hitachi Chemical Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 57192946 A2 **19821127** Showa, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1981-71151 19810511.
GI





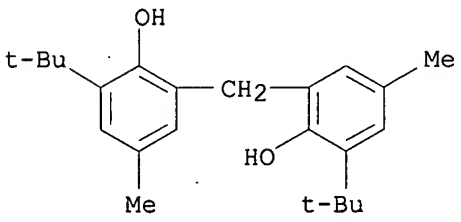
AB **Photosensitive** resin compns. composed of an ethylene-type compd., an initiator liberating free radicals, and a film-forming polymer contain a heterocyclic compd. of the formula I (X = O, S, Se, NH; R = SH, NHR2 [R2 = H, C1-3 alkyl]; R1 = C1-10 alkyl) at 0.005-1 wt.%, and a dihydroquinoline deriv. of the formula II (R3 = H, C1-15 alkyl, alkoxy) or its polymd. product and/or a triazine deriv. of the formula III (R4, R5 = H, C1-5 alkyl; R6, R7 = H, C1-12 alkyl) at 0.001-0.5 wt.% and can be used as photoresists. The additives I-III reduce the red coloration of a Cu substrate and give improved adherence of the photoresist layer to the substrate. Thus, a **photosensitive** layer contg. both 2-aminobenzothiazole and polymeric 2,2,4-trimethyl-1,2-dihydroquinoline showed no red coloration of a Cu substrate on UV exposure and development, while samples free from I or II, or both, led to coloration of the Cu substrate.
IC G03C001-68; C23F001-00; G03F007-10
ICA C08F002-44; C08F002-48; C08F291-00
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other

Reprographic Processes)
IT Resists
(photo-, **photosensitive** resin compns. for)
IT 84-47-9 89-28-1 90-94-8 91-53-2 95-14-7 **119-47-1**
119-61-9, uses and miscellaneous 136-95-8 147-47-7 149-30-4
558-13-4 569-64-2 991-84-4 1552-42-7 3524-68-3 4986-89-4
9010-88-2 9011-14-7 17025-47-7 17831-71-9 25852-47-5 57491-53-9
85875-32-7
RL: TEM (Technical or engineered material use); USES (Uses)
(photoresist compns. contg.)
IT **119-47-1**
RL: TEM (Technical or engineered material use); USES (Uses)
(photoresist compns. contg.)
RN 119-47-1 HCA
CN Phenol, 2,2'-methylenebis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)

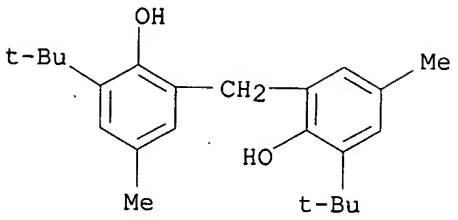


L49 ANSWER 130 OF 258 HCA COPYRIGHT 2003 ACS on STN
97:136659 Photothermographic **photosensitive** materials. (Ricoh Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 57040252 A2 **19820305** Showa, 17 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1980-115588 19800822.
AB A sensitizer, whose photoexcitation product reduces Co(III) complex salt, is added to the base-generating layer of a photothermog. material having (1) a base-generating layer contg. Co(III) ammine (or amine) complex, a quinone deriv., a reducing agent, and a chelating agent; (2) an intermediate layer; and (3) a coloration layer contg. aminotriarylmethane deriv. type color-former, a coloration promoting acid, and hexaarylbiimidazole type photooxidizing agent. Thus, a polyester film support was coated with a compn. contg. poly(vinyl butyral), [Co(NH3)6](CF3CO2)6, 9,10-phenanthrenequinone, dimethylglyoxime, o-iodobenzoic acid, polyethylene glycol, and 3-carboxymethyl-5-[(3-ethyl-2-benzooxazolinylidene)ethylidene]-2-thio-2,4-oxazolidenedione to form a base-generating layer. Then, a poly(vinyl alc.) intermediate layer was formed, and the intermediate layer was overcoated with a compn. contg. cellulose acetate butyrate, 4,4',4''-tris(diethylamino)-2,2'-dimethyltriphenylmethane, 2,2'-bis(2-chlorophenyl)-4,4',5,5'-tetraphenylbiimidazole, p-toluenesulfonic acid, 2,6-di-tert-butyl-p-cresol, and polyethylene glycol to give a high-sensitivity photothermog. film.
IC G03C001-72; G03C001-727
CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT Photothermography
(**photosensitive** materials contg. cobalt complexes for, sensitizers for)
IT Vinyl acetal polymers
RL: USES (Uses)
(butyrals, photothermog. **photosensitive** materials contg.,

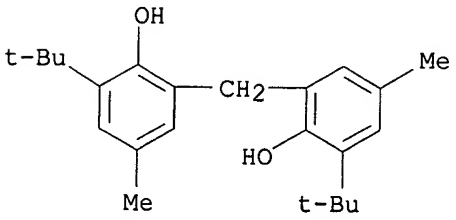
sensitizers for)
IT 84-11-7 88-67-5 95-45-4 104-15-4, uses and miscellaneous 110-16-7, uses and miscellaneous **119-47-1** 128-08-5 128-37-0, uses and miscellaneous 1251-85-0 1707-68-2 1785-51-9 2304-85-0 3002-18-4 4482-70-6 7631-86-9, uses and miscellaneous 9002-89-5 9004-36-8 25322-68-3 59561-55-6 68582-45-6
RL: USES (Uses)
(photothermog. **photosensitive** materials contg., sensitizers for)
IT **119-47-1**
RL: USES (Uses)
(photothermog. **photosensitive** materials contg., sensitizers for)
RN 119-47-1 HCA
CN Phenol, 2,2'-methylenebis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)



L49 ANSWER 140 OF 258 HCA COPYRIGHT 2003 ACS on STN
96:226618 Photothermographic materials. (Oriental Photo Industrial Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 56147143 A2 **19811114** Showa, 10 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1980-52011 19800418.
AB Photothermog. **photosensitive** materials contain an org. Ag salt, a reducing agent, a **photosensitive** Ag halide, a binder, and .gtoreq.1 compd. selected from RZNR1CR2R3R4 (R, R1, R2, R3 = H, alkyl, aryl; RR1 may combine to form a 5- or 6-membered ring; R4 = halo; Z = CO, SO2). Thus, a paper support was coated with a compn. contg. Ag behenate, behenic acid, poly(vinyl butyral), LiBr, and N-bromomethylmaleimide, and subsequently coated with a compn. contg. 2,2'-methylenebis(6-tert-butyl-4-methylphenol), phthalazinone, poly(vinyl butyral), 3-ethyl-5-[3-methyl-2-thiazonylidene)ethylidene]rhodanine, and Hg(OAc)2 to give a photothermog. material, which became **photosensitive** when heat-treated.
IC G03C001-06; G03C005-00
CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT Photothermography
(**photosensitive** materials for, thermal activation type)
IT 112-85-6 119-39-1 **119-47-1** 1600-27-7 2489-05-6 7292-14-0 7550-35-8 7685-96-3 7789-47-1 24650-08-6 44398-42-7 81979-88-6 81979-89-7 81979-90-0
RL: USES (Uses)
(photothermog. materials contg., thermal activation type)
IT **119-47-1**
RL: USES (Uses)
(photothermog. materials contg., thermal activation type)
RN 119-47-1 HCA
CN Phenol, 2,2'-methylenebis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)



L49 ANSWER 150 OF 258 HCA COPYRIGHT 2003 ACS on STN
95:229249 Silver halide photographic **photosensitive** materials. (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 56064333 ~~19810601~~ Showa, 20 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1979-140282 19791030.
AB Water-insol. photog. additives (such as couplers) are dispersed in gelatin solns. by using .alpha.-hydroxycarboxylic acid esters of the formula RCH(OH)CO2R1 (R = C1-24 alkyl, C2-24 alkenyl, C7-14 aralkyl, Ph; R1 = C4-24 alkyl, C5-15 cycloalkyl) as the solvents. Thus, a magenta coupler, 1-(2,4,6-trichlorophenyl)-3-(2-chloro-5-tetradecaneamidoanilino)-2-pyrazolin-5-one, was dissolved by using CH3CH(OH)CO2CH2CH[CH(Me)CH2CMe3]CH2CH2CH(Me)CH2CMe3, and the soln. was used to prep. multilayer color photog. paper. The magenta images on the paper showed excellent light fastness.
IC G03C001-06; G03C007-26
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic Processes)
IT **119-47-1** 40278-59-9 57246-09-0
RL: USES (Uses)
(photog. stabilizer, solvents for, hydroxycarboxylic acid esters as)
IT **119-47-1**
RL: USES (Uses)
(photog. stabilizer, solvents for, hydroxycarboxylic acid esters as)
RN 119-47-1 HCA
CN Phenol, 2,2'-methylenebis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)



=> d L43 1 cbib abs hitind hitstr

L43 ANSWER 1 OF 18 HCA COPYRIGHT 2003 ACS on STN
136:332831 Photothermographic material and method for forming images. Oya, Toyohisa; Fukui, Kouta; Yoshioka, Yasuhiro; Katoh, Kazunobu (Japan). U.S. Pat. Appl. Publ. US 20020048732 A1 20020425, 65 pp. (English). CODEN: USXXCO. APPLICATION: US 2001-809178 20010316. PRIORITY: JP 2000-76273 20000317; JP 2000-283931 20000919; JP 2001-2670 20010110.
AB The present invention relates to a photothermog. material comprising at least (a) a **photosensitive** silver halide; (b) a reducible silver

salt; (c) a reducing compd.: Q1-NHNH-R1 (Q1 = 5-7 membered unsatd. ring bonding to NHNH-R1 at a carbon atom; and R1 = carbamoyl, acyl group, alkoxycarbonyl group, aryloxycarbonyl group, sulfonyl group, a sulfamoyl group; provided that when R1 = propylcarbamoyl group, Q1 .noteq. 2,3,5,6-tetrachloro-4-cyanophenyl group); and (d) a binder. The present invention provides a photothermog. materials showing high sensitivity, high development speed and little fluctuation of performance due to heat development temp. variation.

IC ICM G03C001-08
ICS G03C001-34; G03C001-498

NCL 430350000

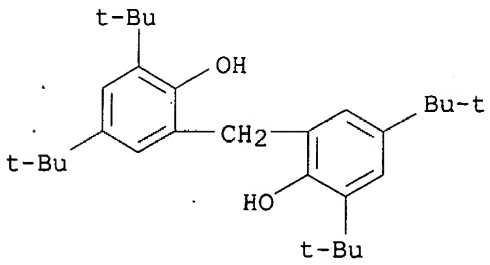
CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 88-24-4 128-37-0, uses **14362-12-0** 35958-30-6 182297-11-6 190184-77-1 192713-24-9 243843-53-0 261905-32-2 329745-83-7 352708-25-9 414891-57-9 414891-62-6 414891-65-9 414891-67-1 414891-69-3 414891-71-7 414891-74-0 414891-76-2 414891-78-4 414891-80-8 414891-82-0
RL: TEM (Technical or engineered material use); USES (Uses) (reducing agent; photothermog. material and method for forming images contg.)

IT **14362-12-0**
RL: TEM (Technical or engineered material use); USES (Uses) (reducing agent; photothermog. material and method for forming images contg.)

RN 14362-12-0 HCA

CN Phenol, 2,2'-methylenebis[4,6-bis(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)



=> d L43 2 cbib abs hitind hitstr

L43 ANSWER 2 OF 18 HCA COPYRIGHT 2003 ACS on STN

136:191756 Manufacture of solid dispersion of photographic useful compound and thermographic material using it. Toda, Satoru (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002055405 A2 20020220, 41 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-240658 20000809.

AB A colorless water-insol. org. compd. is dispersed in a medium and heat-treated for 2-300 h at temp. higher than that at the dispersion. The org. compd. may be a a polyhalomethyl compd. a bisphenol compd., or a compd. which can form H-bond with a bisphenol compd. The obtained dispersion and photothermog. material comprising a **photosensitive** Ag halide, a non-**photosensitive** org. Ag salt, a reducing agent, the dispersion, and a binder are also claimed. The dispersion shows good storage stability and coatability.

IC ICM G03C001-06
ICS G03C001-34; G03C001-498

CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other

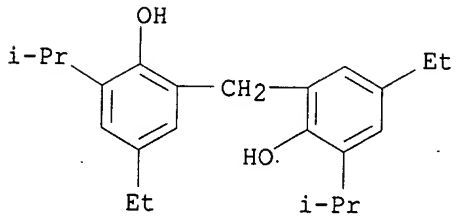
Reprographic Processes)

IT 88-24-4 133-63-1 3772-23-4 82100-95-6 **351863-57-5** 400060-12-0
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(reducing agent; photothermog. material using solid dispersion of photog. useful compd.)

IT **351863-57-5**
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(reducing agent; photothermog. material using solid dispersion of photog. useful compd.)

RN 351863-57-5 HCA

CN Phenol, 2,2'-methylenebis[4-ethyl-6-(1-methylethyl)- (9CI) (CA INDEX NAME)

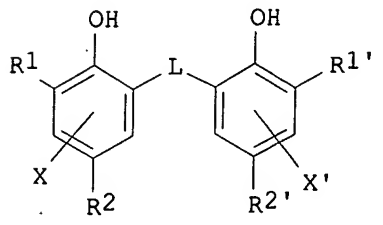


=> d L43 3-18 cbib abs hitind hitstr

L43 ANSWER 3 OF 18 HCA COPYRIGHT 2003 ACS on STN

135:144740 Image formation using photothermographic material containing phenolic compound reducing agent and polyhalide. Yoshioka, Yasuhiro (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2001209145 A2 20010803, 33 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-16661 20000126.

GI



I

AB An image is formed by developing the photothermog. material at 100-140.degree. for 1-20 s, which comprises a layer contg. a non-**photosensitive** org. Ag salt, a **photosensitive** Ag halide, .gtoreq.1 Ag ion reducing agent I (R1, R1' = alkyl, .gtoreq.1 of which is a secondary or tertiary alkyl; R2, R2' = H, a group to be substituted to a benzene ring; L = S, CHR3; R3 = H, alkyl; X, X' = H, the group to be substituted to the benzene ring), .gtoreq.1 polyhalide QYnCZ1Z2X (Q = alkyl, aryl, heterocycle; Y = bivalent linkage; n = 0, 1; Z1, Z2 = halo, X

= H, electron attractive group) and a binder on one side of a support. The title method provides images with neutral black tone and improved storage stability and without fog.

IC ICM G03C001-498
ICS G03C001-498

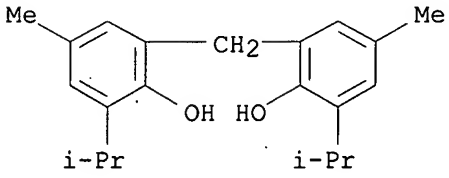
CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 88-24-4 119-47-1 4081-14-5 4773-40-4 **24742-47-0** 93803-56-6 **351863-57-5**
RL: DEV (Device component use); USES (Uses)
(photothermog. material contg. phenolic compd. reducing agent and polyhalide)

IT **24742-47-0 351863-57-5**
RL: DEV (Device component use); USES (Uses)
(photothermog. material contg. phenolic compd. reducing agent and polyhalide)

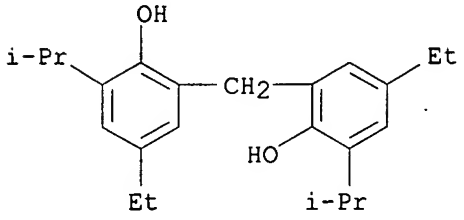
RN 24742-47-0 HCA

CN Phenol, 2,2'-methylenebis[4-methyl-6-(1-methylethyl)- (9CI) (CA INDEX NAME)



RN 351863-57-5 HCA

CN Phenol, 2,2'-methylenebis[4-ethyl-6-(1-methylethyl)- (9CI) (CA INDEX NAME).



L43 ANSWER 4 OF 18 HCA COPYRIGHT 2003 ACS on STN

134:274324 **Photosensitive** heat-developable composition for forming anisotropic conductive bonding material. Nakano, Tomoharu; Miyazaki, Tadakazu (Sanyo Chemical Industries, Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2001089667 A2 20010403, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-272033 19990927.

AB The compn. comprises metal salts, reducing agents, and insulating adhesive resins. Integrated circuits mounted on printed circuit substrates by using the compn. and their bonding method are also claimed. Only bonded parts have conductive metals by using the compn., so that the compn. is suitable for fine pitch connection.

IC ICM C08L101-00
ICS C08K005-00; C09J009-02; C09J201-00; G03F007-004; H05K003-32

CC 76-2 (Electric Phenomena)
Section cross-reference(s): 38

ST **photosensitive** heat developable compn anisotropic conductor; metal salt anisotropic conductive bonding material; reducing agent

anisotropic conductive bonding material; insulator adhesive resin anisotropic conductive bonding material

IT Epoxy resins, uses
RL: DEV (Device component use); PNU (Preparation, unclassified); POF (Polymer in formulation); PREP (Preparation); USES (Uses)
(adhesive; **photosensitive** heat-developable compn. contg. metal salts, reducing agents, and insulating adhesive resins for forming anisotropic conductive bonding material)

IT Electric insulators
(adhesives; **photosensitive** heat-developable compn. contg. metal salts, reducing agents, and insulating adhesive resins for forming anisotropic conductive bonding material)

IT Electric conductors
(anisotropic; **photosensitive** heat-developable compn. contg. metal salts, reducing agents, and insulating adhesive resins for forming anisotropic conductive bonding material)

IT Adhesives
(dielec.; **photosensitive** heat-developable compn. contg. metal salts, reducing agents, and insulating adhesive resins for forming anisotropic conductive bonding material)

IT Anisotropic materials
(elec. conductors; **photosensitive** heat-developable compn. contg. metal salts, reducing agents, and insulating adhesive resins for forming anisotropic conductive bonding material)

IT Electronic device fabrication
Light-sensitive materials
Reducing agents
(**photosensitive** heat-developable compn. contg. metal salts, reducing agents, and insulating adhesive resins for forming anisotropic conductive bonding material)

IT Salts, processes
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(**photosensitive** heat-developable compn. contg. metal salts, reducing agents, and insulating adhesive resins for forming anisotropic conductive bonding material)

IT 170969-19-4P
RL: DEV (Device component use); PNU (Preparation, unclassified); POF (Polymer in formulation); PREP (Preparation); USES (Uses)
(adhesive; **photosensitive** heat-developable compn. contg. metal salts, reducing agents, and insulating adhesive resins for forming anisotropic conductive bonding material)

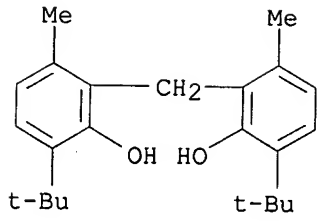
IT 2489-05-6, Silver behenate
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(**photosensitive** heat-developable compn. contg. metal salts, reducing agents, and insulating adhesive resins for forming anisotropic conductive bonding material)

IT **17977-47-8**, 2,2'-Methylenebis(6-tert-butyl-3-methylphenol)
RL: RCT (Reactant); RACT (Reactant or reagent)
(reducing agent; **photosensitive** heat-developable compn. contg. metal salts, reducing agents, and insulating adhesive resins for forming anisotropic conductive bonding material)

IT **17977-47-8**, 2,2'-Methylenebis(6-tert-butyl-3-methylphenol)
RL: RCT (Reactant); RACT (Reactant or reagent)
(reducing agent; **photosensitive** heat-developable compn. contg. metal salts, reducing agents, and insulating adhesive resins for forming anisotropic conductive bonding material)

RN 17977-47-8 HCA
CN Phenol, 2,2'-methylenebis[6-(1,1-dimethylethyl)-3-methyl- (9CI) (CA INDEX

NAME)



L43 ANSWER 5 OF 18 HCA COPYRIGHT 2003 ACS on STN
131:163422 Image formation using heat development recording material for printing platemaking. Kato, Kazunobu (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 11218873 A2 **19990810** Heisei, 30 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-34183 19980130.

AB In the title process comprising heat development of a recording material possessing a recording layer contg. a non-**photosensitive** org. Ag salt, a reducing agent which can reduce the Ag salt, and a thermoplastic polymer binder on a support, the support is a polymer film which has been heat-treated at a temp. of higher than the glass transition temp. of the polymer, the layer on the recording layer side contains .gtoreq.1 contrast-improving agent, and the heat development involves 1st heat treatment of heating at a temp. of .ltoreq.100.degree. at which image formation dose not occur substantially and the subsequent 2nd heat treatment of heating at a temp. of .gtoreq.100.degree. for image formation. The shrinkage of the material upon heat development is prevented and high contrast images without unevenness in image d. are obtained.

IC ICM G03C001-498
ICS G03C001-498; G03C001-76

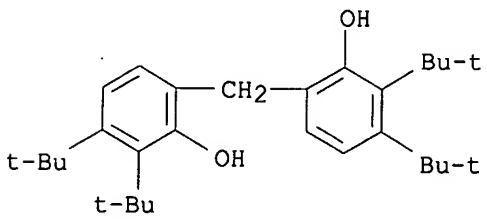
CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 84687-86-5 **237749-94-9**
RL: DEV (Device component use); USES (Uses)
(reducing agent; photothermog. copying material giving high contrast image)

IT **237749-94-9**
RL: DEV (Device component use); USES (Uses)
(reducing agent; photothermog. copying material giving high contrast image)

RN 237749-94-9 HCA

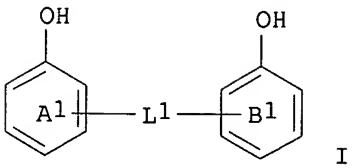
CN Phenol, 2,2'-methylenebis[5,6-bis(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)



L43 ANSWER 6 OF 18 HCA COPYRIGHT 2003 ACS on STN
130:259594 **Photosensitive** material useful in production of printing

plate. Makino, Naonori (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 11065123 A2 **19990305** Heisei, 20 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-237790 19970819.

GI



I

AB The title material comprises a support coated successively with a curable resin layer contg. an ethylenic unsatd. polymg. compd. or an ethylenic unsatd. crosslinkable polymer, a **photosensitive** layer contg. a Ag halide, and an overcoat layer contg. poly(vinyl alc.) with sapon. degree .gtoreq.90% and contains a reducing agent and a bisphenol compd. I [L1 = S, O, CO, SO, SO2, NR1 (R1 = H, alkyl, aryl), divalent aliph. group residue, divalent arom. group residue, divalent heterocycle residue, divalent linking group composed of these atoms and groups; benzene rings A and B may have 1-4 substituents] in the curing layer or **photosensitive** layer. The material may comprise a support coated with the curing layer and a **photosensitive** layer contg. a Ag halide and the poly(vinyl alc.) and contains I. The material produces a clear image (satisfactorily cured image) even upon heating at a relatively low temp.

IC ICM G03F007-06
ICS G03F007-00; G03F007-004; G03F007-033; G03F007-11; G03F007-26

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST photoimaging material printing plate bisphenol compd; curable resin layer photoimaging printing plate; silver halide **photosensitive** layer printing plate

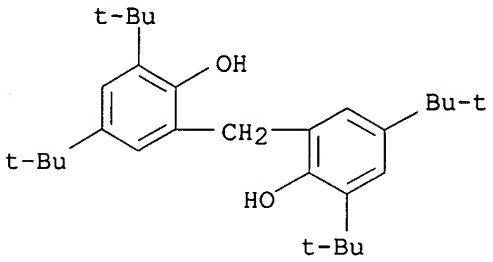
IT Photoimaging materials
Printing plates
(photoimaging material with curable resin layer and silver halide-contg. **photosensitive** layer for manuf. of printing plate)

IT 9002-89-5, PVA 105
RL: DEV (Device component use); USES (Uses)
(PVA 105; photoimaging material with curable resin layer and silver halide-contg. **photosensitive** layer for manuf. of printing plate)

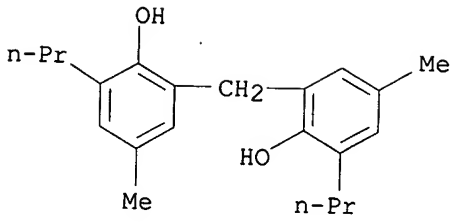
IT 4986-89-4, Pentaerythritol tetraacrylate 9003-20-7D, Poly(vinyl acetate), sapond. 90216-38-9, Allyl methacrylate-methacrylic acid copolymer 122463-72-3, PVA 205
RL: DEV (Device component use); USES (Uses)
(photoimaging material with curable resin layer and silver halide-contg. **photosensitive** layer for manuf. of printing plate)

IT 88-24-4 90-68-6 119-47-1 1843-24-9 4066-02-8 6538-35-8 7292-14-0 13081-86-2 **14362-12-0** 33145-10-7 93803-56-6 167409-46-3
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(photoimaging material with curable resin layer and silver halide-contg. **photosensitive** layer for manuf. of printing

plate)
IT 201731-13-7
RL: DEV (Device component use); USES (Uses)
(reducing agent; photoimaging material with curable resin layer and silver halide-contg. **photosensitive** layer for manuf. of printing plate)
IT **14362-12-0**
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(photoimaging material with curable resin layer and silver halide-contg. **photosensitive** layer for manuf. of printing plate)
RN 14362-12-0 HCA
CN Phenol, 2,2'-methylenebis[4,6-bis(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)



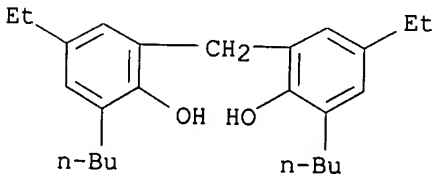
L43 ANSWER 7 OF 18 HCA COPYRIGHT 2003 ACS on STN
126:39801 Organic silver salt recording material with long shell life. Usami, Tomomasa; Hosoi, Noryuki; Ooga, Kunihiko (Fuji Photo Film Co Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 08272034 A2 **19961018** Heisei, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1995-97731 19950329.
AB The material contains an org. Ag salt and a developer which is encapsulated with microcapsules showing thermal response. The recording layer may contain a development accelerator. The material may contain a **photosensitive** Ag halide. Typical developer is a phenolic compd. The material shows long shell life.
IC ICM G03C001-498
ICS B41M005-26; B41M005-28
CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 42
IT **184034-74-0**
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(org. silver salt recording material contg. microencapsulated developer with long shell life)
IT **184034-74-0**
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(org. silver salt recording material contg. microencapsulated developer with long shell life)
RN 184034-74-0 HCA
CN Phenol, 2,2'-methylenebis[4-methyl-6-propyl- (9CI) (CA INDEX NAME)



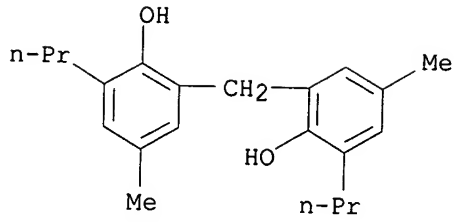
L43 ANSWER 8 OF 18 HCA COPYRIGHT 2003 ACS on STN
126:13106 Recording material and process for producing the same. Usami, Toshimasa; Hosoi, Noriyuki; Ohga, Kunihiko (Fuji Photo Film Co., Ltd., Japan). Eur. Pat. Appl. EP 736799 A1 19961009, 16 pp.
DESIGNATED STATES: R: DE, FR, GB. (English). CODEN: EPXXDW.
APPLICATION: EP 1996-302324 19960401. PRIORITY: JP 1995-103167 19950405.

AB A recording material which comprises a support having provided thereon at least a recording layer comprising (a) heat-responsive microcapsules having encapsulated therein an org. silver salt, (b) a developer for the org. silver salt, and (c) a water-sol. binder. A process for producing the recording material is disclosed. The recording material of the present invention can be prepd. without adversely affecting the working environment, has a remarkably prolonged shelf life, and is capable of recording a high-d. image thereon.

IC ICM G03C001-498
ICS G03C001-00
CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT Photothermographic copying
(**photosensitive** compns. contg. microencapsulated org. silver salts and spectral sensitizers for)
IT 77-40-7, Bisphenol B 118-48-9, 2H-3,1-Benzoxazine-2,4(1H)-dione 119-39-1, Phthalazinone 121-79-9, Propyl gallate 1034-01-1, Octyl gallate 7292-14-0 51767-45-4 **76267-64-6** 184034-66-0 **184034-74-0**
RL: TEM (Technical or engineered material use); USES (Uses)
(org. silver salt thermal recording material developing compns. contg.)
IT **76267-64-6 184034-74-0**
RL: TEM (Technical or engineered material use); USES (Uses)
(org. silver salt thermal recording material developing compns. contg.)
RN 76267-64-6 HCA
CN Phenol, 2,2'-methylenebis[6-butyl-4-ethyl- (9CI) (CA INDEX NAME)



RN 184034-74-0 HCA
CN Phenol, 2,2'-methylenebis[4-methyl-6-propyl- (9CI) (CA INDEX NAME)



L43 ANSWER 9 OF 18 HCA COPYRIGHT 2003 ACS on STN
124:328421 Electrophotographic **photosensitive** material. Nogami, Sumitaka; Kitazawa, Michihiro (Fuji Electric Co., Ltd., Japan). Eur. Pat. Appl. EP 699962 A1 **19960306**, 39 pp. DESIGNATED STATES: R: DE, FR, GB. (English). CODEN: EPXXDW. APPLICATION: EP 1995-113720 19950831. PRIORITY: JP 1994-208352 19940901.

AB A combination of at least one member selected from specific hydrobenzoin compds. and at least one other member selected from specific hindered phenols or specific quinones or specific hydroquinones is incorporated in a layer contg. a charge-transporting agent at least provided on an electroconductive substrate. Thereby is obtained an org. electrophotog. **photosensitive** material having excellent elec. characteristics and markedly improved stability in characteristics even during long-term repeated use.

IC ICM G03G005-05
ICS G03G005-06

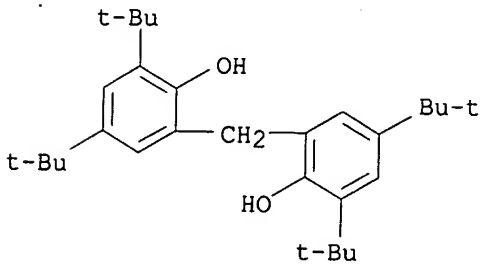
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 88-24-4 90-66-4 119-47-1 128-37-0, uses 899-89-8 2082-79-3 2668-47-5 4130-42-1 **14362-12-0** 23128-74-7 32687-78-8 35958-30-6 61167-58-6 176386-66-6
RL: TEM (Technical or engineered material use); USES (Uses) (electrophotog photoreceptor charge-transporting layers contg. hydrobenzoins and)

IT **14362-12-0**
RL: TEM (Technical or engineered material use); USES (Uses) (electrophotog photoreceptor charge-transporting layers contg. hydrobenzoins and)

RN 14362-12-0 HCA

CN Phenol, 2,2'-methylenebis[4,6-bis(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)



L43 ANSWER 10 OF 18 HCA COPYRIGHT 2003 ACS on STN
123:183370 Silver halide color photographic material. Makuta, Toshuki; Seto, Nobuo; Yoshioka, Yasuhiro (Fuji Photo Film Co Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 07146532 A2 **19950606** Heisei, 95 pp. (Japanese).

CODEN: JKXXAF. APPLICATION: JP 1993-315782 19931124.

AB A silver halide color photog. material showing improved color developability and color reproducibility and providing lightfast color images comprises, in .gtoreq.1 **photosensitive** silver halide emulsion layer, .gtoreq.1 acylamide yellow coupler, a bisphenol compd., and a compd. contg. a spiro or bicyclo ring.

IC ICM G03C007-36
ICS G03C007-00; G03C007-392

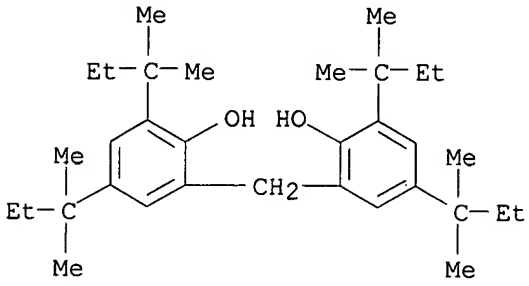
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 119-47-1 1843-24-9 9011-14-7, Poly(methyl methacrylate) 25267-41-8, Poly(N-tert-butylacrylamide) 28407-82-1 33145-10-7 **50378-93-3** 89929-64-6 89929-65-7 117724-98-8 135122-53-1 138305-46-1 150440-50-9 150440-55-4 150440-56-5 155329-88-7 161858-30-6 167409-46-3 167409-47-4 167409-48-5 167409-49-6 167409-50-9 167409-51-0 167409-52-1 167409-53-2 167409-54-3 167409-55-4 167409-57-6
RL: TEM (Technical or engineered material use); USES (Uses)
(silver halide color photog. materials contg. acylamide yellow couplers and)

IT **50378-93-3**
RL: TEM (Technical or engineered material use); USES (Uses)
(silver halide color photog. materials contg. acylamide yellow couplers and)

RN 50378-93-3 HCA

CN Phenol, 2,2'-methylenebis[4,6-bis(1,1-dimethylpropyl)- (9CI) (CA INDEX NAME)



L43 ANSWER 11 OF 18 HCA COPYRIGHT 2003 ACS on STN

123:22024 Silver halide color photographic materials. Obayashi, Keiji; Morigaki, Masakazu (Fuji Photo Film Co Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 07020608 A2 **19950124** Heisei, 43 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1993-164567 19930702.

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title photog. materials comprise a support coated with red-, green-, and blue-sensitive Ag halide emulsion layers and colloidal Ag-contg. non-**photosensitive** layers contg. a phenolic compd. I [R1-5 = H, alkyl, XR0, 2 groups on the ortho positions with each other in R1-5 may link to form a chroman ring; X = CR6R7 (R6, R7 = H, alkyl), O, S; R0 = hydroxyphenyl group, but when X = CR6R7, R6 = R7 = alkyl, and R1 = R5 = XR0, R0 may be an alkyl, R3 .noteq. H and .gtoreq.1 of R1-5 is XR0 or the

group required to form a chroman ring, when R3 = XR0 and R0 = hydroxyphenyl group, both R1 and R5 are not H]. The colloidal Ag-contg. layer may contain II (X = H, OH, amino, sulfonamide; R11-12 = same as X, alkyl, aryl, amide, ureido, alkylthio, arylthio, alkoxy, aryloxy, R11 and R12 may form a ring; when X = H, R11 = OH, amino, sulfonamide; R13 = H, halo, sulfo, COOH, alkyl, acyl, oxycarbonyl, carbamoyl, sulfonyl, sulfamoyl, mol. wt. of II .gtoreq.300). The materials show good color reproducibility and improved storage stability even when using colloidal Ag. Thus, a color photog. film was prepd. by using a yellow filter layer contg. colloidal Ag, III, and IV.

IC ICM G03C001-825
ICS G03C001-047; G03C007-392

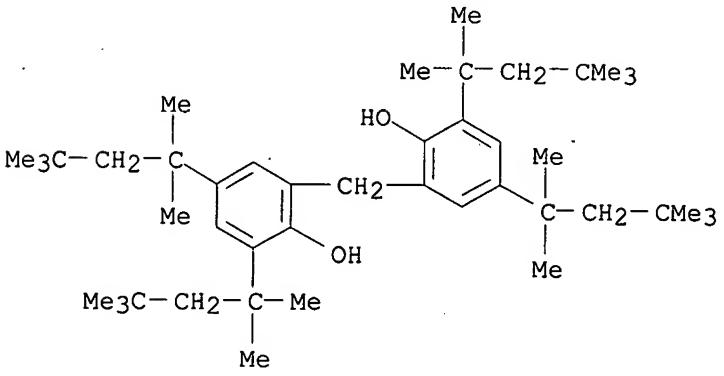
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 90-68-6 96-65-1 119-47-1 903-19-5 10191-41-0 20047-03-4 35958-30-6 54637-02-4 69963-81-1 **77565-09-4** 106135-09-5 163674-00-8
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(photog. film with nonphotosensitive layer contg. colloidal silver and phenolic compd.)

IT **77565-09-4**
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(photog. film with nonphotosensitive layer contg. colloidal silver and phenolic compd.)

RN 77565-09-4 HCA

CN Phenol, 2,2'-methylenebis[4,6-bis(1,1,3,3-tetramethylbutyl)- (9CI) (CA INDEX NAME)



L43 ANSWER 12 OF 18 HCA COPYRIGHT 2003 ACS on STN

122:174341 Electrophotographic color image formation. Ito, Hiroshi (Seiko Epson Corp, Japan). Jpn. Kokai Tokkyo Koho JP 06242564 A2 **19940902** Heisei, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1993-29332 19930218.

AB A method of forming color images using ink particles contg. **photosensitive** Ag halide salts for developing electrostatic latent images comprises the steps of (1) exposing an image-holding substance to form electrostatic latent images, (2) developing the latent images with ink particles to form preliminarily developed images, (3) color-exposing the developed images to form color latent images, (4) heat-developing the color latent images to form reduced Ag images, and (5) applying heat and pressure simultaneously while a releasing soln. in which a bleaching agent contg. a chain of C.gtoreq.10 methylene groups is supplied to carry out

thermal fixation and bleaching of the colorant by oxidn. bleaching of the reduced Ag. This method provides high-quality color images with good storage stability. Thus, the color image formation was carried out by using ink particles contg. Ag behenate, AgBr, methylenebis-6-butyl-4-methylphenol, dyes and a resin and a releasing soln. contg. a bleaching agent comprising Al stearate sulfate and distearylthiourea.

IC ICM G03C007-28
ICS G03C001-498; G03C008-40; G03G013-01

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT Electrophotographic developers
(electrophotog. color image formation using ink contg. **photosensitive** silver halide)

IT 2503-73-3, C.I. 34200
RL: TEM (Technical or engineered material use); USES (Uses)
(Direct Blue 78; electrophotog. color image formation using ink contg. **photosensitive** silver halide)

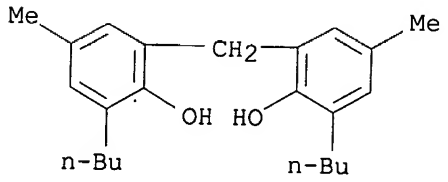
IT 2489-05-6, Silver behenate 5001-72-9, Direct Red 31 7785-23-1, Silver bromide 8005-52-5, Direct Yellow 44
RL: TEM (Technical or engineered material use); USES (Uses)
(electrophotog. color image formation using ink contg. **photosensitive** silver halide)

IT **16729-45-6**
RL: TEM (Technical or engineered material use); USES (Uses)
(reducing agent; electrophotog. color image formation using ink contg. **photosensitive** silver halide)

IT **16729-45-6**
RL: TEM (Technical or engineered material use); USES (Uses)
(reducing agent; electrophotog. color image formation using ink contg. **photosensitive** silver halide)

RN 16729-45-6 HCA

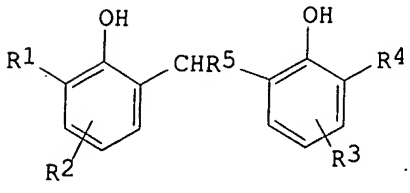
CN Phenol, 2,2'-methylenebis[6-butyl-4-methyl- (9CI) (CA INDEX NAME)



L43 ANSWER 13 OF 18 HCA COPYRIGHT 2003 ACS on STN

121:96165 Heat-developable **photosensitive** substance. Tanaka, Hiromi; Fukui, Tetsuro; Mori, Akihiro; Kobayashi, Motokazu; Kondo, Juji (Canon Kk, Japan). Jpn. Kokai Tokkyo Koho JP 06003793 A2 **19940114** Heisei, 9 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1992-163042 19920622.

GI



I

AB The **photosensitive** substance comprises a support with a coating of a **photosensitive** layer contg. an org. Ag salt, a **photosensitive** Ag halide, and, as a reducing agent, a bisphenol compd. I (R1-4 = H, halo, (substituted) alkyl, (substituted) cycloalkyl, (substituted) aralkyl, (substituted) aryl; R5 = H, alkyl, (substituted) aryl, R1 .noteq. R4 and/or R2 .noteq. R3). The **photosensitive** substance shows good storage stability and heat development latitude and provides high resoln. images. Thus, a PET film was coated with a compn. contg. AgBr, behenic acid, Ag behenate, 4-methyl-6-tert-butyl-2-(3-n-dodecyl-5-methyl-2-hydroxybenzyl)phenol, and a resin and with a protective layer to give a **photosensitive** film.

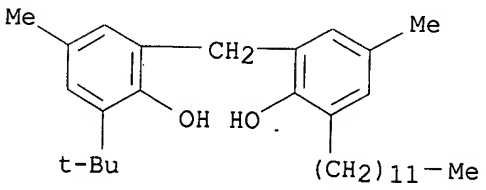
IC ICM G03C008-40
ICS G03C001-498; G03C005-00

CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

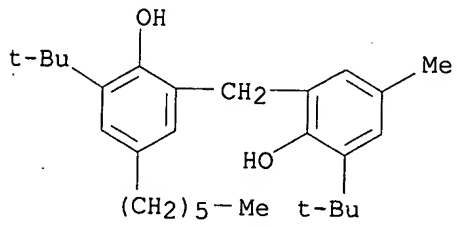
IT **156243-14-0** 156243-15-1 **156243-16-2**
156243-17-3 156243-18-4 156243-19-5
RL: USES (Uses)
(reducing agent, photothermog. material using)

IT **156243-14-0 156243-16-2 156243-17-3**
RL: USES (Uses)
(reducing agent, photothermog. material using)

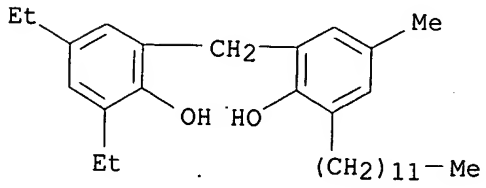
RN 156243-14-0 HCA
CN Phenol, 2-(1,1-dimethylethyl)-6-[(3-dodecyl-2-hydroxy-5-methylphenyl)methyl]-4-methyl- (9CI) (CA INDEX NAME)



RN 156243-16-2 HCA
CN Phenol, 2-(1,1-dimethylethyl)-6-[[3-(1,1-dimethylethyl)-5-hexyl-2-hydroxyphenyl]methyl]-4-methyl- (9CI) (CA INDEX NAME)



RN 156243-17-3 HCA
CN Phenol, 2-[(3,5-diethyl-2-hydroxyphenyl)methyl]-6-dodecyl-4-methyl- (9CI) (CA INDEX NAME)



L43 ANSWER 14 OF 18 HCA COPYRIGHT 2003 ACS on STN
113:123749 **Photosensitive** material and image-forming method.
Katayama, Masato; Fukui, Tetsuro; Mouri, Akihiro; Isaka, Kazuo; Miura, Kyo; Kagami, Kenji; Suzuki, Masao (Canon K. K., Japan). Eur. Pat. Appl. EP 360014 A1 **19900328**, 80 pp. DESIGNATED STATES: R: DE, FR, GB, IT, NL. (English). CODEN: EPXXDW. APPLICATION: EP 1989-115410 19890821. PRIORITY: JP 1988-207230 19880823; JP 1988-250173 19881004; JP 1989-128729 19890524; JP 1989-130165 19890525; JP 1989-134699 19890530; JP 1989-139130 19890602; JP 1989-159715 19890623.

AB A **photosensitive** material comprises a **photosensitive** layer contg. **photosensitive** Ag halide, an org. Ag salt, and a reducing agent, a polymg. layer contg. a polymerizable polymer precursor and a photopolymn. initiator, and a coloring material layer contg. a heat-diffusible coloring material. An image-forming method using the **photosensitive** material comprises the steps of (a) subjecting the **photosensitive** material to imagewise exposure; (b) heating the **photosensitive** material; (c) subjecting the polymg. layer to overall exposure; and (d) heating at least the coloring material layer to transfer the heat-diffusible coloring matter to an image-receiving material, thus forming a color image.

IC G03C008-40; G03F007-028

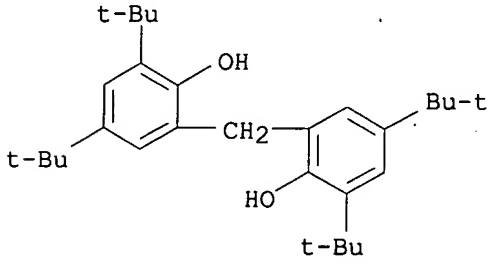
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 84-85-5, 4-Methoxy-1-naphthol 148-24-3, 8-Quinolinol, uses and miscellaneous 604-60-4, 1,1'-Dihydroxy-2,2'-binaphthyl 3236-63-3, 2,2'-Methylenebis(4-methylphenol) 5769-92-6 **14362-12-0**, 2,2'-Methylenebis(4,6-di-tert-butylphenol) 66742-59-4, 2,2'-Methylenebis(4-methoxyphenol) 124013-85-0
RL: USES (Uses)
(reducing agent, heat-developable photog. material contg.)

IT **14362-12-0**, 2,2'-Methylenebis(4,6-di-tert-butylphenol)
RL: USES (Uses)
(reducing agent, heat-developable photog. material contg.)

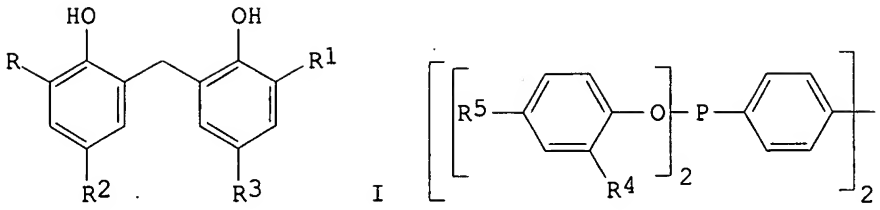
RN 14362-12-0 HCA

CN Phenol, 2,2'-methylenebis[4,6-bis(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)

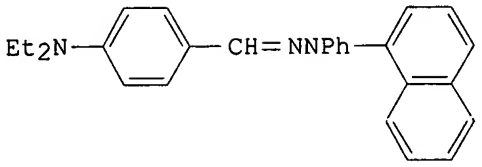


L43 ANSWER 15 OF 18 HCA COPYRIGHT 2003 ACS on STN
113:106386 Electrophotographic photoreceptors with a **photosensitive** layer containing a bisphenol compound and an organic phosphorus compound.
Ko, Masaaki; Kawamorita, Yoichi; Yoshida, Akira (Canon K. K., Japan). Jpn. Kokai Tokkyo Koho JP 01292348 A2 **19891124** Heisei, 10 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1988-122102 19880520.

GI



I II



III

AB Electrophotog. photoreceptors, having a **photosensitive** layer on a conductive support, contain, in at least the farthest layer from the support, a lubricant powder, a charge-transporting agent with an oxidn. potential of <0.6 V, and compds. I [R, R1 = tert-Bu, CMe2Et; R2, R3 = H, C1-10 alkyl, C2-10 alkenyl) and II (R4, R5 = C1-10 alkyl, C2-10 alkenyl). The photoreceptors exhibit good sensitivity and durability and provide high quality images. Thus, an Al cylinder with a conductive undercoat layer and a resin undercoat layer was coated with a compn. contg. a bisazo pigment and poly(vinyl butyral) resin and overcoated with a dispersion contg. an poly(ethylene tetrafluoride) resin powder, III (oxidn. potential 0.57 V), a polycarbonate resin, I (R, R1 = tert-Bu; R2 = R3 = Me) and II (R4 = R5 = tert-Bu) to give a photoreceptor.

IC ICM G03G005-05

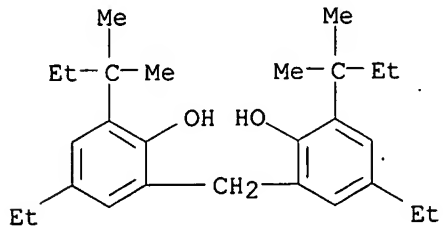
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT **127388-03-8 127388-04-9 127388-05-0**
127388-07-2 127388-08-3 127388-09-4 127388-10-7 127388-11-8
128994-98-9
RL: USES (Uses)
(electrophotog. photoreceptors contg., for good sensitivity and durability)

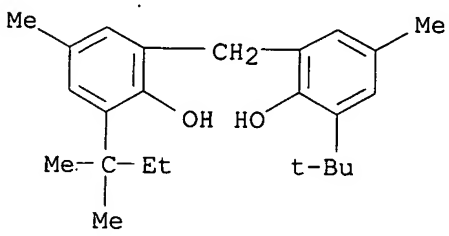
IT **127388-03-8 127388-04-9 127388-05-0**
128994-98-9
RL: USES (Uses)
(electrophotog. photoreceptors contg., for good sensitivity and durability)

RN 127388-03-8 HCA

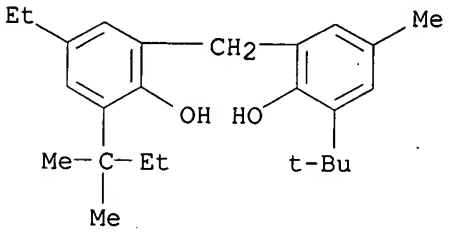
CN Phenol, 2,2'-methylenebis[6-(1,1-dimethylpropyl)-4-ethyl- (9CI) (CA INDEX NAME)



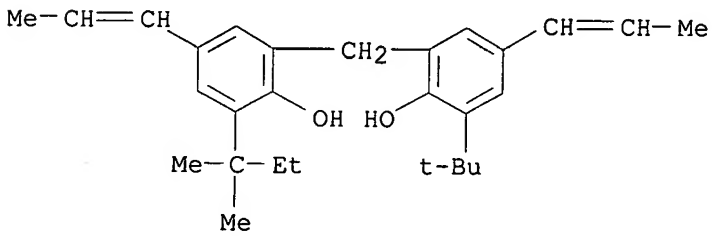
RN 127388-04-9 HCA
CN Phenol, 2-(1,1-dimethylethyl)-6-[[3-(1,1-dimethylpropyl)-2-hydroxy-5-methylphenyl]methyl]-4-methyl- (9CI) (CA INDEX NAME)



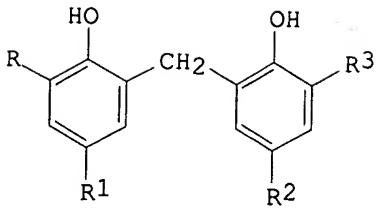
RN 127388-05-0 HCA
CN Phenol, 2-(1,1-dimethylethyl)-6-[[3-(1,1-dimethylpropyl)-5-ethyl-2-hydroxyphenyl]methyl]-4-methyl- (9CI) (CA INDEX NAME)



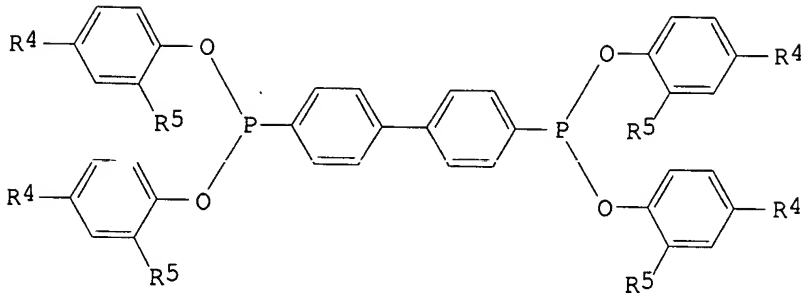
RN 128994-98-9 HCA
CN Phenol, 2-(1,1-dimethylethyl)-6-[[3-(1,1-dimethylpropyl)-2-hydroxy-5-(1-propenyl)phenyl]methyl]-4-(1-propenyl)- (9CI) (CA INDEX NAME)



L43 ANSWER 16 OF 18 HCA COPYRIGHT 2003 ACS on STN
112:243064 Electrophotographic photoreceptor containing hindered bisphenol and organic phosphonite ester. Nakagawa, Masaru (Canon K. K., Japan). Jpn. Kokai Tokkyo Koho JP 01266548 A2 **19891024** Heisei, 11 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1988-95849 19880418.
GI



I



II

AB The title photoreceptor has, on an elec. conductive support, a **photosensitive** layer contg. org. photoconductive substances, a bisphenol compd. I (R, R3 = tert-Bu, CMe2Et; R1, R2 = H, C1-10 alkyl, C2-10 alkenyl), and an org. phosphonite II (R4, R5 = C1-10 alkyl, C2-10 alkenyl). The photoreceptor shows resistance against corona discharge-formed substances, e.g. O3, NOx, in repeating use. Thus, a nylon-undercoated Al cylinder was coated with a compn. contg. a charge-generating trisazo pigment and S-Lec BL-S [poly(vinyl butyral) resin] and overcoated with a compn. contg. a charge-transporting stilbene compd., Panlite L-1250 (polycarbonate resin), Sumilizer MDP-S, and IRGAFOS P-EPQFF to give the title photoreceptor.

IC ICM G03G005-05

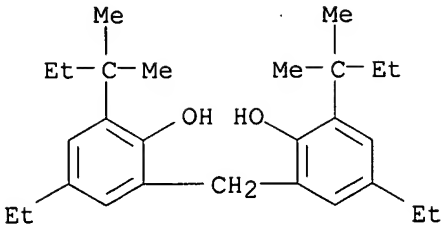
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 88-24-4, Antioxidant 425 119-47-1, Sumilizer MDP-S **127388-03-8 127388-04-9 127388-05-0 127388-06-1**
RL: USES (Uses)
(electrophotog. photoconductor contg., with phosphonite ester, for repeating use, resistance against corona discharging-derived active compd. in)

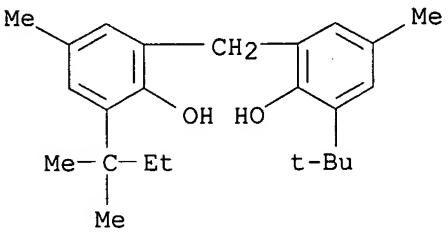
IT **127388-03-8 127388-04-9 127388-05-0 127388-06-1**
RL: USES (Uses)
(electrophotog. photoconductor contg., with phosphonite ester, for repeating use, resistance against corona discharging-derived active compd. in)

RN 127388-03-8 HCA

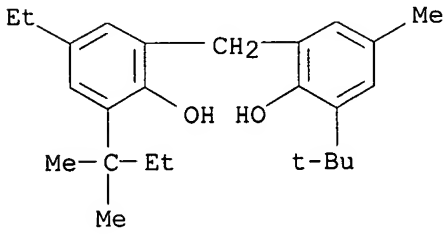
CN Phenol, 2,2'-methylenebis[6-(1,1-dimethylpropyl)-4-ethyl- (9CI) (CA INDEX NAME)



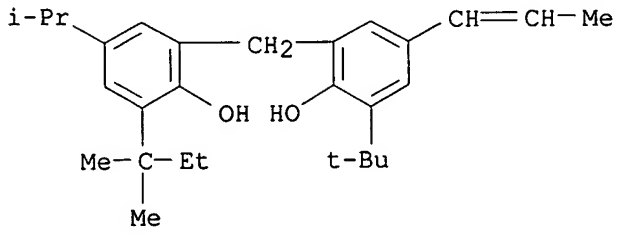
RN 127388-04-9 HCA
CN Phenol, 2-(1,1-dimethylethyl)-6-[[3-(1,1-dimethylpropyl)-2-hydroxy-5-methylphenyl]methyl]-4-methyl- (9CI) (CA INDEX NAME)



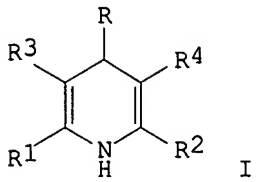
RN 127388-05-0 HCA
CN Phenol, 2-(1,1-dimethylethyl)-6-[[3-(1,1-dimethylpropyl)-5-ethyl-2-hydroxyphenyl]methyl]-4-methyl- (9CI) (CA INDEX NAME)



RN 127388-06-1 HCA
CN Phenol, 2-(1,1-dimethylethyl)-6-[[3-(1,1-dimethylpropyl)-2-hydroxy-5-(1-methylethyl)phenyl]methyl]-4-(1-propenyl)- (9CI) (CA INDEX NAME)



L43 ANSWER 17 OF 18 HCA COPYRIGHT 2003 ACS on STN
94:93702 Color imaging process. Chu, Victor Fu Hua; Riesenfeld, James (du Pont de Nemours, E. I., and Co., USA). Ger. Offen. DE 2945564 **19800522**, 28 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1979-2945564 19791110.
GI



I

AB A process for the prodn. of color images useful in image transfer processes, such as textile printing, is described which uses a neg.-working tonable **photosensitive** layer. In the process the **photosensitive** layer is imagewise exposed to actinic radiation through a transparent image-carrying original to give a tacky surface in the exposed areas, a colored toner is then applied to the tacky areas, and the toned area then polished or rubbed to give a shine. These steps can then be repeated with a different color toner. Typical **photosensitive** compns. for this process consist of a thermoplastic binder and a **light-sensitive** system that contains .gtoreq.1 dihydropyridine (I; R = alkyl, alkylene, aryl, or a heterocycle; R1, R2 = alkyl; R3, R4 = CO2R5, COR5, or CN when R5 = alkyl). Thus, a polypropene support was coated at 30 mg/dm2 (dry) with a soln. contg. poly(Me methacrylate) 42.86, benzophenone 6.50, 2,2',4,4',5,5'-hexaphenylbiimidazole 28.10, 2,2'-bis(2-chlorophenyl)-4,4',5,5'-tetraphenylbiimidazole 31.38, 2,2'-bis(2-methoxyphenyl)-4,4',5,5'-tetraphenylbiimidazole 30.95, 2,4,6-trimethyl-3,5-bis(carboethoxy)-1,4-dihydropyridine 9.54, 2,6-dimethyl-4-ethyl-3,5-bis(carbethoxy)-1,4-dihydropyridine 10.04, 2,6-dimethyl-4-propyl-3,5-bis(carboethoxy)-1,4-dihydropyridine 10.54, 2,6-dimethyl-4-benzyl-3,5-bis(carbethoxy)-1,4-dihydropyridine 12.24, hydroquinone (in 60 mL MeOH) 1.00, polyethylene glycol (in 60 mL MeOH) 1.00, CH2Cl2 2100.00 g, polyethylene glycol monolauryl ether 15.00, and triethylene glycol diacetate 8.57 mL, dried, a protective layer laminated thereon, the protective layer removed and the material laminated to a chromecote paper, exposed a color sepn. neg., toned with Latyl Blue BCN (cyan dye) dispersed in cellulose acetate, reexposed to a 2nd color sepn. neg., toned with Latyl Cerise N (bluish red dye) dispersed in cellulose acetate, and the finished image then used in the transfer printing of a Dacron cloth.

IC G03C001-72; G03C007-00

CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic Processes)
Section cross-reference(s): 39

ST tonable photoimaging material transfer imaging; **photosensitive** material tonable transfer imaging; textile printing tonable photoimaging material

IT Polyester fibers, uses and miscellaneous
RL: USES (Uses)
(transfer printing of, tonable **photosensitive** imaging compns. for)

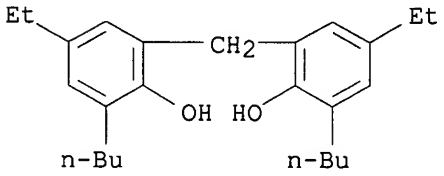
IT Transfers
(color, tonable **photosensitive** compns. for prodn. of)

IT Textile printing
(transfer, tonable **photosensitive** compns. for)

IT 3337-17-5D, derivs.
RL: USES (Uses)
(tonable **photosensitive** compns. contg., for color image formation)

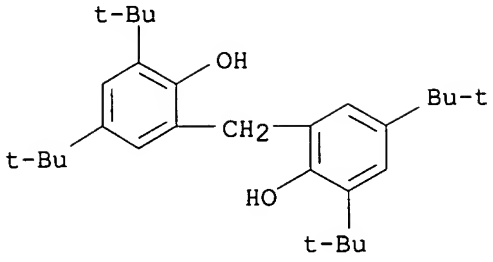
IT 111-21-7 117-81-7 119-61-9, uses and miscellaneous 123-31-9, uses

and miscellaneous 632-93-9 811-32-5 1153-66-8 1156-64-5
1539-57-7 1707-68-2 1831-70-5 9002-92-0 9011-14-7 25322-68-3
76267-64-6
RL: USES (Uses)
(tonable **photosensitive** compns. contg., for color image prodn.)
IT 81-42-5 7576-65-0 12217-79-7 17418-58-5
RL: USES (Uses)
(toner, for tonable **photosensitive** imaging compns. for color images)
IT **76267-64-6**
RL: USES (Uses)
(tonable **photosensitive** compns. contg., for color image prodn.)
RN 76267-64-6 HCA
CN Phenol, 2,2'-methylenebis[6-butyl-4-ethyl- (9CI) (CA INDEX NAME)



L43 ANSWER 18 OF 18 HCA COPYRIGHT 2003 ACS on STN
72:37755 **Light-sensitive**, heat-developable sheets for positive printing. Lyons, Thomas D. (Minnesota, Mining and Manufg. Co.). Ger. Offen. DE 1908758 **19690918**, 18 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1969-1908758 19690218.
AB The title compns. are prepd. by combining a Ag soap of a long-chain fatty acid (e.g. Ag behenate, I), with a source of Hg ions (0.0004-0.15 mole Hg/mole Ag), a source of Br- (optionally combined as e.g. such as in H gBr2), and phthalazinone (II) (.ltoreq.3 moles/mole Hg) and a sterically hindered ortho-substituted phenolic reducing agent, such as 2,2'-methylenebis-(4,6-di-tert-butylphenol) (III). After exposure, the material is developed by heating at a carefully detd. temp. Thus, a mixt. contg. a 15% suspension of I in 50/50 PhMe-MeCOEt 67, HgBr2 0.4, a 15% soln. of poly(vinylbutyral) 67, II 0.5, and III 4 g was coated as a 0.076-mm layer on a 0.1-mm poly(ethylene terephthalate) support, exposed sensitometrically, and developed at 112, 120, 127, and 133.degree.. The 1st 2 samples showed a D log E curve with a pos. slope, whereas the last 2 gave a neg. slope, necessary for pos. printing. Max. differences of d. were 1.0 (127.degree.) and 0.9 (133.degree.), resp.
IC G03C
CC 74 (Radiation Chemistry, Photochemistry, and Photographic Processes)
ST heat developed **photosensitive** layers; **photosensitive** layers heat developed; silver behenate heat developed; mercury images heat developed; images heat developed; phenols heat developed images
IT 90-68-6 119-39-1 119-47-1 6922-60-7 7292-14-0 **14362-12-0**
RL: USES (Uses)
(direct pos. heat-developable photographic emulsions from silver behenate and)
IT **14362-12-0**
RL: USES (Uses)
(direct pos. heat-developable photographic emulsions from silver behenate and)
RN 14362-12-0 HCA
CN Phenol, 2,2'-methylenebis[4,6-bis(1,1-dimethylethyl)- (9CI) (CA INDEX

NAME)

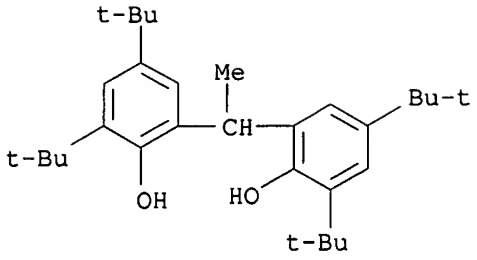


=> d L62 1,3,6,9,12,15,18,21,25,27,30,34 cbib abs hitind hitstr

L62 ANSWER 1 OF 34 HCA COPYRIGHT 2003 ACS on STN
136:332831 Photothermographic material and method for forming images. Oya, Toyohisa; Fukui, Kouta; Yoshioka, Yasuhiro; Katoh, Kazunobu (Japan). U.S. Pat. Appl. Publ. US 20020048732 A1 20020425, 65 pp. (English). CODEN: USXXCO. APPLICATION: US 2001-809178 20010316. PRIORITY: JP 2000-76273 20000317; JP 2000-283931 20000919; JP 2001-2670 20010110.

AB The present invention relates to a photothermog. material comprising at least (a) a **photosensitive** silver halide; (b) a reducible silver salt; (c) a reducing compd.: Q1-NHNH-R1 (Q1 = 5-7 membered unsatd. ring bonding to NHNH-R1 at a carbon atom; and R1 = carbamoyl, acyl group, alkoxycarbonyl group, aryloxycarbonyl group, sulfonyl group, a sulfamoyl group; provided that when R1 = propylcarbamoyl group, Q1 .noteq. 2,3,5,6-tetrachloro-4-cyanophenyl group); and (d) a binder. The present invention provides a photothermog. materials showing high sensitivity, high development speed and little fluctuation of performance due to heat development temp. variation.

IC ICM G03C001-08
ICS G03C001-34; G03C001-498
NCL 430350000
CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 88-24-4 128-37-0, uses 14362-12-0 **35958-30-6** 182297-11-6 190184-77-1 192713-24-9 243843-53-0 261905-32-2 329745-83-7 352708-25-9 414891-57-9 414891-62-6 414891-65-9 414891-67-1 414891-69-3 414891-71-7 414891-74-0 414891-76-2 414891-78-4 414891-80-8 414891-82-0
RL: TEM (Technical or engineered material use); USES (Uses) (reducing agent; photothermog. material and method for forming images contg.)
IT **35958-30-6**
RL: TEM (Technical or engineered material use); USES (Uses) (reducing agent; photothermog. material and method for forming images contg.)
RN 35958-30-6 HCA
CN Phenol, 2,2'-ethylidenebis[4,6-bis(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)



L62 ANSWER 3 OF 34 HCA COPYRIGHT 2003 ACS on STN
135:249509 Photothermographic material with **photosensitive** layer containing hydrophobic polymer dispersion soaked with fog inhibitor. Tsukada, Yoshihisa; Nakagawa, Hajime; Yamanouchi, Junichi (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2001255617 A2 20010921, 39 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-69123 20000313.

AB In the photothermog. material comprising a support coated with a **photosensitive** layer contg. .gtoreq.1 **photosensitive** Ag halide, nonphotosensitive org. Ag salts, a reducing agent for Ag ion, a fog inhibitor, and a binder contg. a hydrophobic polymer at least a part of it, the **photosensitive** layer is formed by using the hydrophobic polymer fine particles soaked with the fog inhibitor. Color change on storage is prevented and the layers show good adhesion.

IC ICM G03C001-498
ICS G03C001-498

CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

IT Polyesters, uses
RL: DEV (Device component use); USES (Uses)
(arom.; photothermog. material with **photosensitive** layer contg. hydrophobic polymer dispersion soaked with fog inhibitor)

IT Photographic fog inhibitors
Photothermographic copying
(photothermog. material with **photosensitive** layer contg. hydrophobic polymer dispersion soaked with fog inhibitor)

IT 17025-47-7, Phenyl tribromomethyl sulfone 59626-33-4 85095-67-6 163342-70-9 263339-82-8 299445-94-6 322475-30-9
RL: DEV (Device component use); USES (Uses)
(fog inhibitor; photothermog. material with **photosensitive** layer contg. hydrophobic polymer dispersion soaked with fog inhibitor)

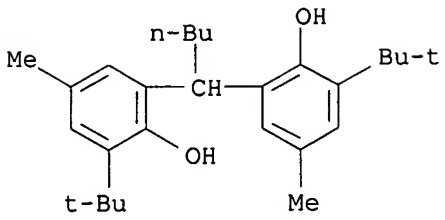
IT 25085-39-6, Acrylic acid-butadiene-styrene copolymer 84593-11-3, Cevian A 4635 137598-90-4, Finetex ES 611
RL: DEV (Device component use); USES (Uses)
(photothermog. material with **photosensitive** layer contg. hydrophobic polymer dispersion soaked with fog inhibitor)

IT 88-24-4 36437-45-3 **139184-57-9** 158194-19-5 357186-72-2 357186-73-3 360069-26-7
RL: DEV (Device component use); USES (Uses)
(reducing agent; photothermog. material with **photosensitive** layer contg. hydrophobic polymer dispersion soaked with fog inhibitor)

IT **139184-57-9**
RL: DEV (Device component use); USES (Uses)
(reducing agent; photothermog. material with **photosensitive** layer contg. hydrophobic polymer dispersion soaked with fog inhibitor)

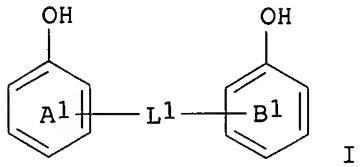
RN 139184-57-9 HCA
CN Phenol, 2,2'-pentylidenebis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA

INDEX NAME)



L62 ANSWER 6 OF 34 HCA COPYRIGHT 2003 ACS on STN
130:259594 **Photosensitive** material useful in production of printing plate. Makino, Naonori (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 11065123 A2 **19990305** Heisei, 20 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-237790 19970819.

GI



I

AB The title material comprises a support coated successively with a curable resin layer contg. an ethylenic unsatd. polymg. compd. or an ethylenic unsatd. crosslinkable polymer, a **photosensitive** layer contg. a Ag halide, and an overcoat layer contg. poly(vinyl alc.) with sapon. degree .gtoreq.90% and contains a reducing agent and a bisphenol compd. I [L1 = S, O, CO, SO, SO2, NR1 (R1 = H, alkyl, aryl), divalent aliph. group residue, divalent arom. group residue, divalent heterocycle residue, divalent linking group composed of these atoms and groups; benzene rings A and B may have 1-4 substituents] in the curing layer or **photosensitive** layer. The material may comprise a support coated with the curing layer and a **photosensitive** layer contg. a Ag halide and the poly(vinyl alc.) and contains I. The material produces a clear image (satisfactorily cured image) even upon heating at a relatively low temp.

IC ICM G03F007-06
ICS G03F007-00; G03F007-004; G03F007-033; G03F007-11; G03F007-26

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST photoimaging material printing plate bisphenol compd; curable resin layer photoimaging printing plate; silver halide **photosensitive** layer printing plate

IT Photoimaging materials
Printing plates
(photoimaging material with curable resin layer and silver halide-contg. **photosensitive** layer for manuf. of printing plate)

IT 9002-89-5, PVA 105
RL: DEV (Device component use); USES (Uses)
(PVA 105; photoimaging material with curable resin layer and silver halide-contg. **photosensitive** layer for manuf. of printing

plate)

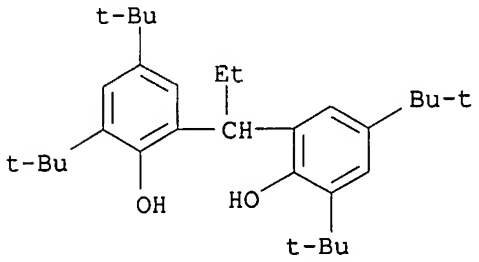
IT 4986-89-4, Pentaerythritol tetraacrylate 9003-20-7D, Poly(vinyl acetate), sapond. 90216-38-9, Allyl methacrylate-methacrylic acid copolymer 122463-72-3, PVA 205
RL: DEV (Device component use); USES (Uses)
(photoimaging material with curable resin layer and silver halide-contg. **photosensitive** layer for manuf. of printing plate)

IT 88-24-4 90-68-6 119-47-1 1843-24-9 4066-02-8 6538-35-8 7292-14-0 **13081-86-2** 14362-12-0 33145-10-7 **93803-56-6 167409-46-3**
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(photoimaging material with curable resin layer and silver halide-contg. **photosensitive** layer for manuf. of printing plate)

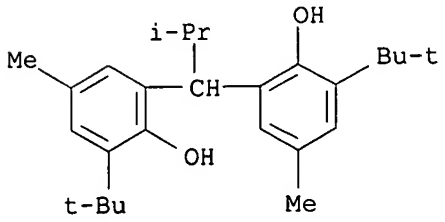
IT 201731-13-7
RL: DEV (Device component use); USES (Uses)
(reducing agent; photoimaging material with curable resin layer and silver halide-contg. **photosensitive** layer for manuf. of printing plate)

IT **13081-86-2 93803-56-6 167409-46-3**
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(photoimaging material with curable resin layer and silver halide-contg. **photosensitive** layer for manuf. of printing plate)

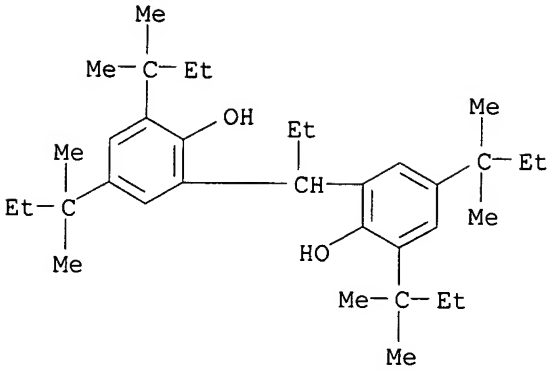
RN 13081-86-2 HCA
CN Phenol, 2,2'-propylidenebis[4,6-bis(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)



RN 93803-56-6 HCA
CN Phenol, 2,2'-(2-methylpropylidene)bis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)



RN 167409-46-3 HCA
CN Phenol, 2,2'-propylidenebis[4,6-bis(1,1-dimethylpropyl)- (9CI) (CA INDEX NAME)



L62 ANSWER 9 OF 34 HCA COPYRIGHT 2003 ACS on STN
124:328421 Electrophotographic **photosensitive** material. Nogami, Sumitaka; Kitazawa, Michihiro (Fuji Electric Co., Ltd., Japan). Eur. Pat. Appl. EP 699962 A1 **19960306**, 39 pp. DESIGNATED STATES: R: DE, FR, GB. (English). CODEN: EPXXDW. APPLICATION: EP 1995-113720 19950831. PRIORITY: JP 1994-208352 19940901.

AB A combination of at least one member selected from specific hydrobenzoin compds. and at least one other member selected from specific hindered phenols or specific quinones or specific hydroquinones is incorporated in a layer contg. a charge-transporting agent at least provided on an electroconductive substrate. Thereby is obtained an org. electrophotog. **photosensitive** material having excellent elec. characteristics and markedly improved stability in characteristics even during long-term repeated use.

IC ICM G03G005-05
ICS G03G005-06

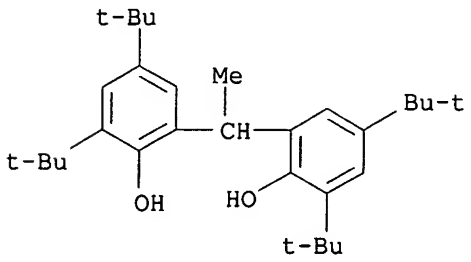
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 88-24-4 90-66-4 119-47-1 128-37-0, uses 899-89-8 2082-79-3 2668-47-5 4130-42-1 14362-12-0 23128-74-7 32687-78-8 **35958-30-6** 61167-58-6 176386-66-6
RL: TEM (Technical or engineered material use); USES (Uses)
(electrophotog photoreceptor charge-transporting layers contg. hydrobenzoins and)

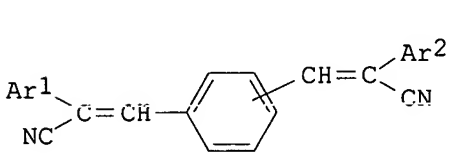
IT **35958-30-6**
RL: TEM (Technical or engineered material use); USES (Uses)
(electrophotog photoreceptor charge-transporting layers contg. hydrobenzoins and)

RN 35958-30-6 HCA

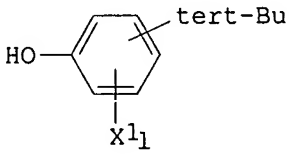
CN Phenol, 2,2'-ethylidenebis[4,6-bis(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)



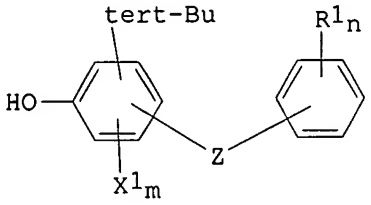
L62 ANSWER 12 OF 34 HCA COPYRIGHT 2003 ACS on STN
119:128400 Durable electrophotographic photoreceptor. Ueda, Hideaki; Tokutake, Shigeaki; Inagaki, Keiichi; Shimada, Juki (Minolta Camera Kk, Japan). Jpn. Kokai Tokkyo Koho JP 05100451 A2 **19930423** Heisei, 23 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1992-22443 19920207. PRIORITY: JP 1991-202737 19910813.
GI



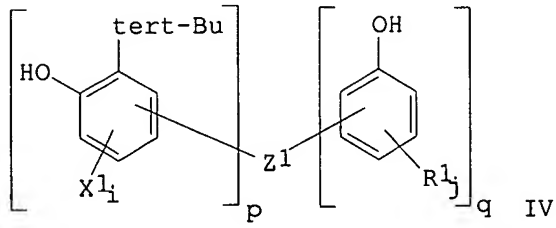
I



II



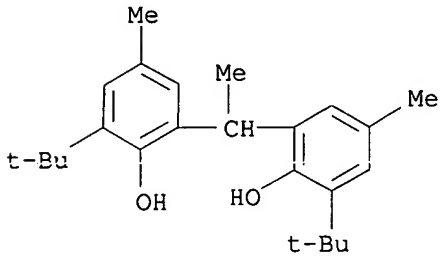
III



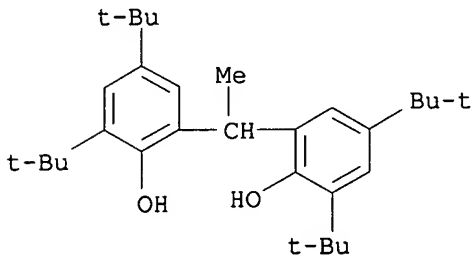
IV

AB The photoreceptor comprising an elec. conductive support coated with a **photosensitive** layer contg. a charge-generating agent and a charge-transporting agent, includes an electron-accepting compd. I [Ar1-2 = CN, (substituted) aryl, alkoxycarbonyl, acyl, aminocarbonyl, halo, alkyl, (substituted) benzoyl] and a hindered phenol compd. II (X1 = H, (substituted) alkyl, alkoxy, hydroxyl, aryl, heterocyclic; l = 0-4), III [m = 0-3; R1 = H, hydroxyl, alkyl, alkoxy, carbonyloxy, aralkyl, heterocyclic; n = 0-5; Z = O, S, NH, NR2, CH2, CHR3, alkylene, arylene, aralkylene, divalent residue of alkanecarboxylic acid or alky ether; R2-3 = (substituted) alkyl, aryl], or IV [i = 0-3, j = 0-4; Z1 = divalent residue of alkylcarboxylic acid ester, alkylcarboxylic acid ester alkyl ether (including thioether), aryloxycarbonyl ester, heterocyclic ether, aralkylene, di(alkylcarbamoylalkyl), arylcarboxylic acid ester, or carboxylic acid hydrazide; p, q.gtoreq.1, p + q = 2-4].
IC ICM G03G005-05
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 118-82-1 128-37-0, uses 128-39-2 991-84-4 1843-03-4 **4773-40-4** 6683-19-8 23128-74-7 **35958-30-6** 116221-57-9 127928-38-5 148149-97-7
RL: USES (Uses)
(function-sepd. electrophotog. photoreceptor contg. electron-acceptor

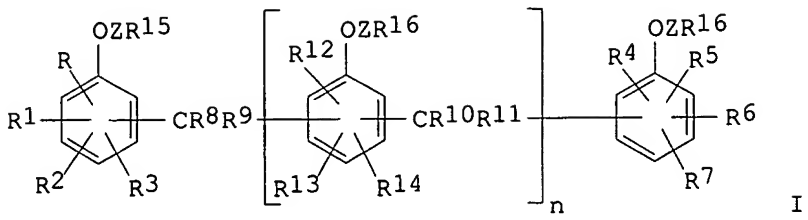
and)
IT **4773-40-4 35958-30-6**
RL: USES (Uses)
(function-sepd. electrophotog. photoreceptor contg. electron-acceptor and)
RN 4773-40-4 HCA
CN Phenol, 2,2'-ethylidenebis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)



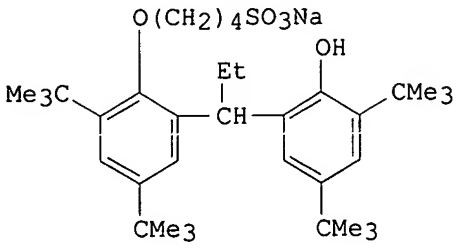
RN 35958-30-6 HCA
CN Phenol, 2,2'-ethylidenebis[4,6-bis(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)



L62 ANSWER 15 OF 34 HCA COPYRIGHT 2003 ACS on STN
105:70053 Silver halide photographic material. Kuraki, Yasuo; Maekawa, Yukio; Yokoyama, Shigeki (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 60203935 A2 **19851015** Showa, 16 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1984-60151 19840328.
GI



I



II

AB A Ag halide photog. material is composed of a support bearing .gtoreq.1 **photosensitive** Ag halide emulsion layer and .gtoreq.1 hydrophilic org. colloid layer contg. .gtoreq.1 photog. agent dispersed in the presence of a surfactant represented by the general formula I [R-R7, R12-R14 = H, halo, alkyl, alkoxy, aryl, acyl, amido, sulfoamido, carbamoyl, sulfamoyl; R8-R11 = H, alkyl, aryl, heterocyclyl; R + R1, R4 + R5, R8 + R9, R10 + R11, R12 + R13 may form a ring; Z = single bond, alkylene, alkyne, arylene; R15 = CO2M, SO3M, OSO3M, OPO(OM)2; R16 = H, alkyl, alkenyl, aryl, CO2M, SO3M, OH, OSO3M, OPO(OM)2; M = H, inorg. or org. cation; n = 0-2). The material is improved to reduce the contamination of photog. processing solns. by photog. agents contained in the material. Thus, dispersions of cyan, magenta, and yellow dye couplers were prepd. by mixing and heating a coupler with trinonyl phosphate, EtOAc, and the surfactant II and dispersing the mixt. with a gelatin soln. A poly(ethylene terephthalate) support was coated with a AgBr0.8Cl0.2 emulsion layer contg. the yellow coupler dispersion, an intermediate gelatin layer, a AgBr0.7Cl0.3 emulsion layer contg. the magenta coupler dispersion and 2,5-di-tert-hexylhydroquinone, a UV-absorbing layer, a AgBr0.5Cl0.5 emulsion layer contg. the cyan coupler dispersion, and a gelatin protecting layer to form a color photog. paper. The paper was wedge-exposed, color-developed, and bleach-fixed to give a color image having high max. d. The material resulted in no contamination of the developer soln. used.

IC ICM G03C001-06

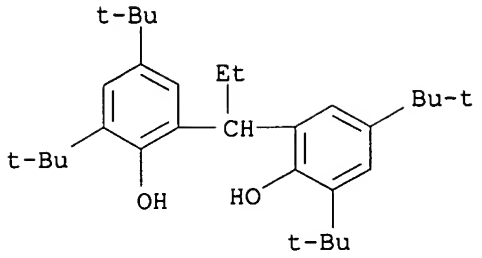
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 96-76-4 1633-83-6 **13081-86-2 91509-15-8** 103556-61-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in prepn. of surfactant as dispersing agent for photog. additives in org. solvents)

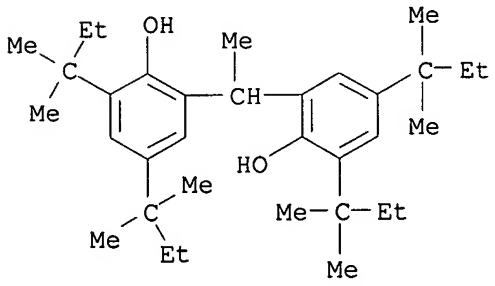
IT **13081-86-2 91509-15-8**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in prepn. of surfactant as dispersing agent for photog. additives in org. solvents)

RN 13081-86-2 HCA

CN Phenol, 2,2'-propylidenebis[4,6-bis(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)



RN 91509-15-8 HCA
CN Phenol, 2,2'-ethylidenebis[4,6-bis(1,1-dimethylpropyl)- (9CI) (CA INDEX NAME)

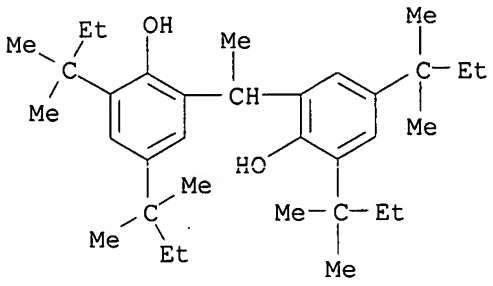


L62 ANSWER 18 OF 34 HCA COPYRIGHT 2003 ACS on STN
102:195054 Photographic, **photosensitive** silver halide material with improved antistatic properties. Yokoyama, Shigeki; Okamura, Hisashi; Maekawa, Yukio; Kawasaki, Hiroshi (Fuji Photo Film Co., Ltd. , Japan). Ger. Offen. DE 3414166 A1 **19841018**, 43 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1984-3414166 19840414. PRIORITY: JP 1983-66007 19830414.
GI

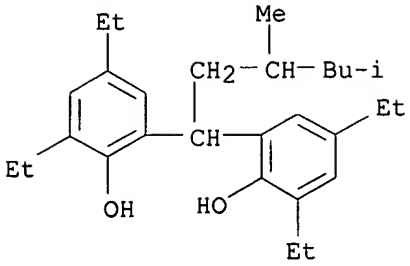
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Photog. materials with improved antistatic characteristics contain a reactive group-contg. nonionic tenside of the formula I, II, or III (R,R1,R2 = H, halogen, alkyl, aryl, alkoxy, acyl, amido, sulfonamido, carbamoyl, or sulfamoyl; R3,R4 = H, alkyl, aryl, heterocycyl, or can combine to form a ring; m, n = 0-40; o = 0 or 1; p = 1-100; q = 0-99). The use of this tenside improves the antistatic characteristics of the material without adversely effecting the photog. characteristics. Thus, a PET support was coated with a gelatin-Ag(Br,I) emulsion layer and then with a protective layer contg. gelatin 1.7 g, 2,6-dichloro-6-hydroxy-1,3,5-triazine Na salt 10, Na dodecyl sulfate 10,' and IV 60 mg/m2. Tests on this material after prepn. showed a sp. surface resistance of 4.9 .times. 1011 .OMEGA. and <1% static marks, while after 24 h the values were 4.2 .times. 1011 .OMEGA. and <1% static marks.
IC G03C001-04
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT **91509-15-8P**

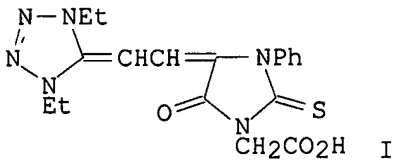
RL: PREP (Preparation)
(prepn. and reaction of with ethylene oxide)
IT **91509-15-8P**
RL: PREP (Preparation)
(prepn. and reaction of with ethylene oxide)
RN 91509-15-8 HCA
CN Phenol, 2,2'-ethylidenebis[4,6-bis(1,1-dimethylpropyl)- (9CI) (CA INDEX NAME)



L62 ANSWER 21 OF 34 HCA COPYRIGHT 2003 ACS on STN
96:226616 Photothermographic materials. (Ricoh Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 56147145 A2 **19811114** Showa, 13 pp. (Japanese).
CODEN: JKXXAF. APPLICATION: JP 1980-51297 19800418.
AB Photothermog. materials contain (1) a base-releasing layer contg. a Co(III) ammine (or amine) complex, a polycyclic quinone-H donor mixt. type redox couple, and a chelating agent whose Co complex shows little light absorbance in the visible region, (2) an intermediate layer, and (3) a coloration layer contg. a leucoaminotriarylmethane-strong acid salt, a hexaarylbiimidazole deriv. type photooxidizing agent, and an antioxidant. Thus, a polyester film was coated with a compn. contg. poly(vinyl butyral), [Co(NH3)6](CF3CO2)3, 9,10-phenanthrenequinone, dimethylglyoxime, o-iodobenzoic acid, and polyethylene glycol and coated with a poly(vinyl alc.) intermediate layer. The intermediate layer was then overcoated with a compn. contg. cellulose acetate butyrate, bis(4-diethylamino-o-tolyl)(4-diethylaminophenyl)methane, 2,2'-bis(o-chlorophenyl)-4,4',5,5'-tetraphenylbiimidazole, p-toluenesulfonic acid, 2,6-di-tert-butyl-p-cresol, and polyethylene glycol to give a photothermog. film which showed good storage stability.
IC G03C001-72
CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT Photothermography
(**photosensitive** materials for, antioxidants for, phenol derivs. as)
IT 80-05-7, uses and miscellaneous 119-47-1 123-31-9, uses and miscellaneous 128-37-0, uses and miscellaneous **81979-79-5**
RL: USES (Uses)
(antioxidant, for photothermog. **photosensitive** materials)
IT **81979-79-5**
RL: USES (Uses)
(antioxidant, for photothermog. **photosensitive** materials)
RN 81979-79-5 HCA
CN Phenol, 2,2'-(3,5-dimethylhexylidene)bis[4,6-diethyl- (9CI) (CA INDEX NAME)



L62 ANSWER 25 OF 34 HCA COPYRIGHT 2003 ACS on STN
89:155609 Photothermographic materials. Ikegami, Shinpei; Masuda, Takao (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 53020923 **19780225** Showa, 17 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1976-96339 19760811.
GI



I

AB In prepg. photothermog. materials having a **photosensitive** layer contg. an org. Ag salt, a photocatalyst, and a reducing agent, S and .gtoreq.1 compd. selected from sulfinic acid, it salts, and thiosulfonic acids are added to the **photosensitive** layer, support, or another layer sepd. from the **photosensitive** layer to reduce fog formation. Thus, a soln. of the merocyanine dye I (0.025% in Me Cellosolve) 8, a 0.05% Na benzenesulfinate soln. (in MeOH) 12, a 3% lauric acid soln. (in EtOH) 20, a 3% phthalazinone soln. (in MeOH) 28, a 20% 2,2-bis(4-hydroxy-3,5-dimethylphenyl)propane soln. (in Me2CO) 20, and a 0.1% S soln. (in PhMe) 1 mL were added in this order with 5 min intervals to a dispersion contg. Ag laurate (1/60 mol), lauric acid, and poly(vinylbutyral) to give a **photosensitive** coating compn. The coating compn. was coated on a paper support to give a photothermog. paper. The paper was imagewise exposed (103 lx-s) and developed at 140.degree. (8 s) to give a Dmax and a D min of 1.30 and 0.12, resp. When the paper was aged at 35.degree. and 80% relative humidity for 2 days prior to the exposure, the Dmax and the Dmin values were 1.28 and 0.14, resp.
IC G03C001-72
CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic Processes)
IT Photothermography
(**photosensitive** compns. contg. org. silver salt, sulfur, sulfonate or thiosulfonate for, with reduced fog formation)
IT 7704-34-9, uses and miscellaneous
RL: USES (Uses)
(**photosensitive** compns. contg. org. silver salt, sulfinate or thiosulfonate and, for photothermog. materials with reduced fog formation)
IT 824-79-3 873-55-2 1887-29-2 26652-46-0 58115-02-9

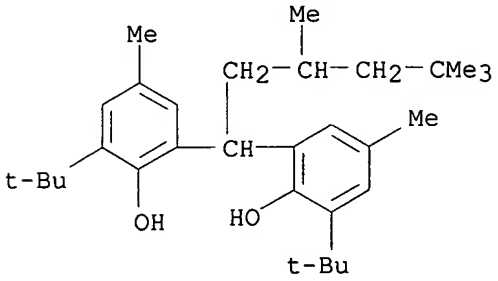
RL: USES (Uses)
(**photosensitive** compns. contg. org. silver salt, sulfur and, for photothermog. materials with reduced fog formation)

IT 112-85-6 119-39-1 143-07-7, uses and miscellaneous 5613-46-7 58471-81-1 **66706-18-1**
RL: USES (Uses)
(**photosensitive** compns. contg. org. silver salt, sulfur, sulfinate or thiosulfonate and, for photothermog. materials with reduced fog formation)

IT 2489-05-6 18268-45-6
RL: USES (Uses)
(**photosensitive** compns. contg. sulfur, sulfonate or thiosulfonate and, for photothermog. materials with reduced fog formation)

IT **66706-18-1**
RL: USES (Uses)
(**photosensitive** compns. contg. org. silver salt, sulfur, sulfinate or thiosulfonate and, for photothermog. materials with reduced fog formation)

RN 66706-18-1 HCA
CN Phenol, 2,2'-(3,5,5-trimethylhexylidene)bis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)

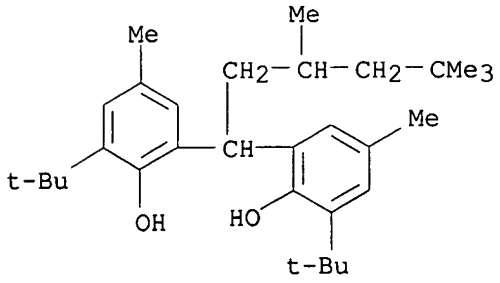


L62 ANSWER 27 OF 34 HCA COPYRIGHT 2003 ACS on STN
89:34209 **Photosensitive** mass for a thermally developable **photosensitive** element. Ikenoue, Shinpei; Masuda, Takao (Fuji Photo Film Co., Ltd., Japan). Ger. Offen. DE 2738632 **19780302**, 65 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1977-2738632 19770826.

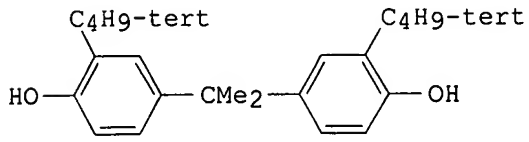
AB Heat-developable, **light-sensitive** materials having improved sensitivity and decreased fog contain a Ag salt of an org. carboxylic acid in catalytic conjuction with a Ag halide that is obtained by reaction of the Ag salt of an org. carboxylic acid with a N-halo compd. in the presence of an amide or sulfonamide. Thus, to a Ag behenate dispersion in poly(vinyl butyral) (prepd. by treating behenic acid 34 g in water 500 mL with NaOH 2.0g in water 50 mL, then treating with AgNO3 8.5 g in water 50 mL, filtering off the ppt., and dispersing in 2-PrOH 200 mL contg. poly(vinyl butyral) 25 g) was added succinimide 2.0 g in MeOH 60 mL and N-bromosuccinimide 1.4 g in Me2CO 100 mL with stirring. To 1/12 of this mass was then added a 0.025 wt.% soln. of a merocyanine sensitizer in Me Cellosolve 2, a 0.01 wt.% soln. of Na benzenethiosulfonate in MeOH 2, a 4.5 wt% soln. of phthalazinone in Me Cellosolve 5, and a 10 wt.% of a bisphenol reducing agent in Me2CO 10 mL and the mass coated on a paper support at 0.3 g Ag/m2, dried, exposed to a step wedge by using a W lamp (3000 CMS), and heated at 130.degree. for 8 s to give a fog of 0.11, a Dmax of 1.25, and a relative sensitivity of 780 vs. 0.11, 1.28, and 100 for a control prepd. without succinimide.

IC G03C001-02

CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic Processes)
IT Photothermography
(**photosensitive** compns. for, with improved sensitivity and decreased fog)
IT 85-41-6 119-39-1 123-56-8 128-08-5 1074-82-4 2037-95-8 2489-05-6 6777-05-5 19770-76-4 36640-86-5 **66706-18-1** 66741-06-8
RL: USES (Uses)
(photothermog. copying compns. contg., with improved sensitivity and decreased fog)
IT **66706-18-1**
RL: USES (Uses)
(photothermog. copying compns. contg., with improved sensitivity and decreased fog)
RN 66706-18-1 HCA
CN Phenol, 2,2'-(3,5,5-trimethylhexylidene)bis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)



L62 ANSWER 30 OF 34 HCA COPYRIGHT 2003 ACS on STN
87:46554 Photographic color materials. Yamada, Minoru; Shishido, Tadao (Fuji Photo Film Co., Ltd., Japan). Ger. Offen. DE 2617826 **19761104**, 93 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1976-2617826 19760423.
GI



II

AB The light resistance of magenta images in color photographs can be improved by including in the **light-sensitive** material or in the image receptor sheet a combination of an agent, such as a 6-hydroxychroman deriv., a 5-hydroxycoumaran deriv., a 6,6'-dihydroxy-2,2'-bisspirochroman deriv., or a hexahydroxybenzofuran-5-ol deriv., which prevents fading, and a phenol deriv., which improves the antifading properties of the above-mentioned compds. Thus, to a soln. contg. 1-(2,4,6-trichlorophenyl)-3-[2-chloro-5-tetradecanamidoanilino]-5-oxo-2-pyrazoline (I) 10.8, 2,2,4-trimethyl-6-hydroxy-tert-octylchroman 2.5, II 0.6, 2,5-di-tert-octylhydroquinone 1g, dioctyl butyl phosphate 15, and EtOAc 30 ml was added a soln. contg. gelatin 10, Na cetylsulfonate 0.5 g, and water 90 ml. This mixt. was dispersed, added to a gelatin-Ag(Cl,Br) emulsion, coated on a polyethylene-coated paper support at 5.25 .times. 10-4 mol I and 4.2 .times. 10-3 mol Ag halide/m2. This

paper was then exposed through a step wedge, processed, and the magenta image then exposed to a daylight fluorescent lamp (28,000 lx) for 4 weeks through a UV filter (>400 .mu.), and the % decrease in the original d. (2.0), the % decrease in Dmax, and the yellowing value detd. to be 20%, 15%, and 0.11 vs. 76%, 90%, and 0.24 for a control contg. only I.

IC G03C007-26

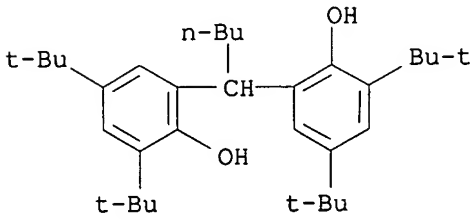
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic Processes)

IT 79-96-9 88-18-6 1843-24-9 6524-50-1 18403-59-3 40278-59-9 **62317-16-2** 63294-99-5 63295-00-1
RL: USES (Uses)
(photog. color films contg., for improved resistance to fading)

IT **62317-16-2**
RL: USES (Uses)
(photog. color films contg., for improved resistance to fading)

RN 62317-16-2 HCA

CN Phenol, 2,2'-pentylidenebis[4,6-bis(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)



L62 ANSWER 34 OF 34 HCA COPYRIGHT 2003 ACS on STN

55:22567 Original Reference No. 55:4418f-i,4419a-f Oxygen radicals. XIV. 2-Phenyl-4,6-di-tert-butyl-1-phenoxyl. Muller, Eugen; Schick, Anton; Mayer, Rudi; Scheffler, Klaus (Univ. Tubingen, Germany). Chemische Berichte, 93, 2649-62 (Unavailable) **1960**. CODEN: CHBEAM. ISSN: 0009-2940.

GI For diagram(s), see printed CA Issue.

AB cf. CA 54, 13082. The prepn., properties, and reactions of 2,4,6-Ph(Me3C)2C6H2O.cntdot. (I) were described. The significance of steric effects for the existence of monomeric aroxyls was convincingly demonstrated by I. All reactions with I were performed under pure N. o-HOC6H4Ph (140 g.) and 7.5 g. concd. H2SO4 treated 4 hrs. with stirring at 60.degree. with Me2C:CH2, the mixt. washed, and distd. gave 130.degree. 2,4,6-Ph(Me3C)2C6H2OH (II), b0.5 130-5.degree., m. 57-8.degree. (MeOH). II (2.82 g.) in 100 cc. C6H6 shaken 10 min. with 15 g. K3Fe(CN)6 and 17 g. KOH in 150 cc. O-free H2O, the org. phase washed with H2O, and dried gave a moss-green soln. of I. I in C6H6 sealed under N in vacuo in a double-Schlenk tube and the solvent removed from the soln. by deep cooling of the empty portion of the app. left a pale greenish foam of dimeric I. I in 20 and 10% soln. in C6H6 and in the solid state showed at 293.degree.K. a paramagnetic susceptibility of 168, 285, and 0 .times. 10-6, resp. Fresh C6H6 soln. of I titrated with NaI-glacial AcOH gave nearly 100% II, m. 57-8.degree.. II (2.82 g.) in 100 cc. petr. ether (b. 50-70.degree.) dehydrogenated in the usual manner and the dried org. layer treated in the dark with cooling with a stream of dry air yielded 2.7 g. peroxide of I, light yellow, m. 104-5.degree. (MeOH). 2,6-(Me3C)2C6H3OH (1.55 g.) in 10 cc. C6H6 treated dropwise with stirring with 83.8 cc. C6H6 contg. 4.22 g. I and evapd., the residue digested with MeOH, and the residual brown powder recrystd. from MeOH gave 1.2 g. 3,3',5,5'-tetra-tert-butyldiphenoquinone, needles, m. 241-3.degree.. 4,2,6-Me(Me3C)2C6H2OH (1.32 g.) with 5.06 g. I gave similarly 0.8 g. tetra-tert-

butylstilbenequinone, red crystals with metallic luster, decompd. at 295-7.degree. (glacial AcOH). 2,4-(Me3C)2C6H3OH (30.9 g.) and 7.95 g. BzH in 50 cc. ligroine refluxed 4 hrs. while being treated with stirring with dry HCl gave 29.4 g. [2,3,5-HO(Me3C)2C6H2]2CHPh (III), m. 139-40.degree. (petr. ether). III (2.5 g.) in 10 cc. C6H6 treated dropwise with stirring with 100 cc. 0.1N I-C6H6, evapd., and the residue triturated with MeOH gave 2.0 g. IV, light yellow, m. 164-5.degree. (petr. ether). 4-Cyclohexyl-2,6-di-tert-butylphenol (1.44 g.), m. 114.5-15.5.degree. (MeOH), added to I from 2.82 g. II in 100 cc. C6H6 yielded 0.45 g. V, m. 133-41.degree. (decompn.) (petr. ether), very unstable and sensitive to light. 2-C10H7SH (0.8 g.) in 10 cc. C6H6 treated dropwise with stirring 56 cc. C6H6 contg. 1.41 g. I, the dried org. layer evapd., and the residue digested with MeOH gave 0.55 g. (2-C10H7S)2, m. 138.5-9.5.degree.. Ph2C:NOH (1.57 g.) in 20 cc. C6H6 treated with stirring with 80 cc. C6H6 contg. 4.49 g. I yielded 2.2 g. benzophenone oxime O-(2-phenyl-4,6-di-tert-butylhydroxyphenyl) ether, m. 106-7.5.degree. (EtOH), **light-sensitive**. II (11.29 g.) in 10 cc. C6H6 dehydrogenated in the usual manner, treated with 50 cc. MeOH, kept 24 hrs. under N, and filtered gave 6.3 g. VI, pale greenish, m. 151-2.degree. turning greener from 145.degree. (C6H6-MeOH); the mother liquor yielded 1.3 g. unchanged II. VI (1.0 g.) in 20 cc. C6H6 hydrogenated 5 hrs. over Pt yielded 0.6 g. o-HOC6H4Ph, m. 157.5-8.5.degree. (MeOH); the mother liquor gave 0.2 g. II, m. 54-6.degree.. o-HOC6H4Ph (0.380 g.) in 50 cc. petr. ether treated with 5 g. K3Fe(CN)6 and 5.5 g. KOH in 50 cc. H2O, the light green org. layer dried, treated with 0.106 g. II in 10 cc. petr. ether, evapd. in vacuo at 30.degree., the residual, voluminous foam digested with petr. ether, and recrystd. under N from C6H6-MeOH gave 0.28 g. VI, m. 150-1.degree..

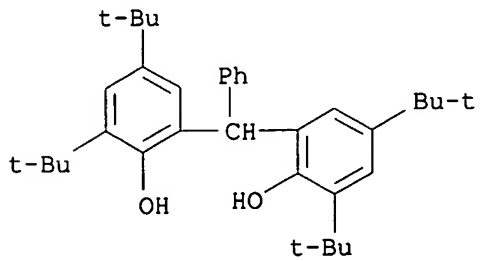
CC 10E (Organic Chemistry: Benzene Derivatives)

IT 809-73-4, 2,5-Cyclohexadien-1-one, 4,4'-ethanediylidenebis[2,6-di-tert-butyl- 2455-14-3, Diphenoquinone, 3,3',5,5'-tetra-tert-butyl- 5427-08-7, Phenol, 2,6-di-tert-butyl-4-cyclohexyl- 7001-04-9, Phenol, 2,4-di-tert-butyl-6-phenyl- **64000-78-8**, Phenol, 2,2'-benzylidenebis[4,6-di-tert-butyl- 70039-13-3, 2,5-Cyclohexadien-1-one, 2,6-di-tert-butyl-4-cyclohexylidene- 103568-41-8, 2,5-Cyclohexadien-1-one, 4-tert-butyl-2,4-bis(3,5-di-tert-butyl-2-biphenylyloxy)-6-phenyl- 105818-37-9, Spiro[benzofuran-2(3H),1'-[2,4]cyclohexadien]-6'-one, 3',5,5',7-tetra-tert-butyl-3-phenyl- 119659-93-7, Benzophenone, O-[3,5-di-tert-butyl-4(or 6)-hydroxy-2-biphenylyl]oxime 125543-72-8, Peroxide, bis(di-tert-butylhydroxybiphenylyl)
(prepn. of)

IT **64000-78-8**, Phenol, 2,2'-benzylidenebis[4,6-di-tert-butyl-
(prepn. of)

RN 64000-78-8 HCA

CN Phenol, 2,2'-(phenylmethylene)bis[4,6-bis(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)

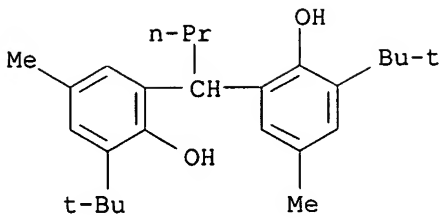


=> d L67 1 cbib abs hitind hitstr

L67 ANSWER 1 OF 14 HCA COPYRIGHT 2003 ACS on STN
137:13308 **Photothermographic** material and heat development process.
Yoshioka, Yasuhiro; Oya, Toyohisa; Yamada, Sumito (Japan). U.S. Pat. Appl. Publ. US 20020068245 A1 20020606, 60 pp. (English). CODEN: USXXCO. APPLICATION: US 2001-945624 20010905. PRIORITY: JP 2000-270498 20000906; JP 2000-351524 20001117.

AB For achieving both advantages of high activity in heat development and superior image storability, the present invention provides a **photothermog**. material comprising a support, an image-forming layer comprising at least one kind of **photosensitive** silver halide, a **photo**-insensitive org. silver salt, a reducing agent for a silver ion and a binder having a glass transition temp. of .gtoreq. 20.degree. C. The image-forming layer comprises a compd. represented by Q1-NHNH-Q2 (Q1 = arom. group, heterocyclic group bonding to -NHNH-Q2 with a carbon atom, and Q2 = carbamoyl group, acyl group, alkoxycarbonyl group, aryloxycarbonyl group, sulfonyl group, sulfamoyl group), and a hydrogen bonding type compd. The present invention provides a heat development process comprising plate heaters and pressing rollers between which the **photothermog**. material is carried through and developed to form an image superior in image storability without unevenness of **photog** . d.

IC ICM G03C001-498
ICS G03C001-34
NCL 430350000
CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST **photothermog** material reducing agent
IT **Photothermographic** copying
(**photothermog**. material and heat development process)
IT Reducing agents
(**photothermog**. material for heat development process contg.)
IT 797-70-6 6163-63-9, Phosphine oxide, tris(2-methylphenyl) 29942-35-6, Phosphine oxide, tris(4-(1,1-dimethylethyl)phenyl)
RL: TEM (Technical or engineered material use); USES (Uses)
(hydrogen bonding type compd.; **photothermog**. material for heat development process contg.)
IT 791-28-6
RL: TEM (Technical or engineered material use); USES (Uses)
(hydrogen bonding type compd.; **photothermog**. material image-forming layer for heat development process contg.)
IT 182297-11-6 193065-71-3 243843-53-0 261905-32-2 321124-95-2 329745-80-4 431887-94-4 431887-96-6
RL: TEM (Technical or engineered material use); USES (Uses)
(**photothermog**. material image-forming layer for heat development process contg.)
IT 88-24-4 119-47-1 **4081-14-5** 4773-40-4 7292-14-0
RL: TEM (Technical or engineered material use); USES (Uses)
(reducing agent; **photothermog**. material for heat development process contg.)
IT **4081-14-5**
RL: TEM (Technical or engineered material use); USES (Uses)
(reducing agent; **photothermog**. material for heat development process contg.)
RN 4081-14-5 HCA
CN Phenol, 2,2'-butylidenebis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)



=> d L67 2-14 cbib abs hitind hitstr

L67 ANSWER 2 OF 14 HCA COPYRIGHT 2003 ACS on STN
136:409082 **Photothermographic** material containing hydrazine and hydrogen bond-forming compound. Yoshioka, Yasuhiro; Oya, Toyohisa (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002156727 A2 20020531, 67 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-226091 20010726. PRIORITY: JP 2000-270498 20000906.

AB The, material comprising a support having a layer contg. .gtoreq.1 **photosensitive** Ag halide, a nonphotosensitive org. Ag salt, a reducing agent for Ag ion, and a binder on one side, contains Q1NHNHQ2 (Q1 = arom. or heterocycle bonding to NHNHQ2 at C atom; Q2 = carbamoyl, acyl, alkoxycarbonyl, aryloxycarbonyl, sulfonyl, sulfamoyl) and H bond-forming compd., and the glass transition temp. of the binder is .gtoreq.20.degree.. The material shows high sensitivity, developability, and gives images with good storage stability.

IC ICM G03C001-498
ICS G03C001-498; G03C001-74

CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST **photothermog** material hydrazine; reducing agent phenolic compd **photothermog** material; hydrogen bond forming agent triphenyl phosphine oxide; binder glass transition temp **photothermog**

IT **Photothermographic** copying
(**photothermog**. material contg. hydrazine and hydrogen bond-forming compd.)

IT Binders
(**photothermog**. material using binder with controlled glass transition temp.)

IT 25085-39-6, Acrylic acid-butadiene-styrene copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(binder; **photothermog**. material using binder with controlled glass transition temp.)

IT 182297-11-6 193065-71-3 243843-53-0 261905-32-2 321124-95-2 329745-80-4 414891-71-7 414891-74-0 431887-92-2 431887-94-4 431887-96-6
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(**photothermog**. material contg. hydrazine and hydrogen bond-forming compd.)

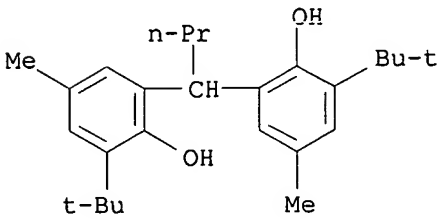
IT 88-24-4 88-24-4D, complexes with triphenylphenylphosphine oxide 119-47-1 119-47-1D, complexes with triphenylphenylphosphine oxide 791-28-6, Triphenylphosphine oxide 791-28-6D, Triphenylphosphine oxide, complexes with phenolic compds. 797-70-6, Tris(p-tolyl)phosphine oxide 797-70-6D, Tris(p-tolyl)phosphine oxide, complexes with phenolic compds. **4081-14-5D**, complexes with triphenylphenylphosphine oxide 4773-40-4 6163-63-9, Tris(o-tolyl)phosphine oxide 6163-63-9D,

Tris(o-tolyl)phosphine oxide, complexes with phenolic compds. 7292-14-0
29942-35-6, Tris(p-tert-butylphenyl)phosphine oxide 29942-35-6D,
Tris(p-tert-butylphenyl)phosphine oxide, complexes with phenolic compds.
RL: TEM (Technical or engineered material use); USES (Uses)
(reducing agent; **photothermog**. material contg. hydrazine and
hydrogen bond-forming compd.)

IT **4081-14-5D**, complexes with triphenylphenylphosphine oxide
RL: TEM (Technical or engineered material use); USES (Uses)
(reducing agent; **photothermog**. material contg. hydrazine and
hydrogen bond-forming compd.)

RN 4081-14-5 HCA

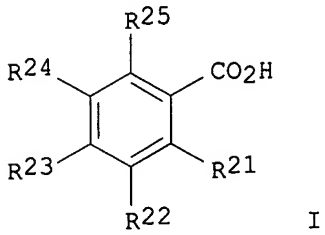
CN Phenol, 2,2'-butylidenebis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)



L67 ANSWER 3 OF 14 HCA COPYRIGHT 2003 ACS on STN

136:207758 **Photothermographic** material with improved raw stock stability and image storage stability. Yoshioka, Yasuhiro (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002062615 A2 20020228, 45 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-249492 20000821.

GI



I

AB The material has an image forming layer contg. .gtoreq.1 **photosensitive** Ag halide, a light insensitive org. Ag salt, a reducing agent, a binder, .gtoreq.1 compd. ZPL(C:Q)Y [P = O, S, NH; Q = O, S; Y = OH, SH, OM, SM (M = counter ion), NH2; L = bivalent linkage; Z = alkyl, aryl, heterocycle] and .gtoreq.1 I (R21-25 = H, substituent, .gtoreq.1 of which is non-dissociative group bonded to benzene ring via C, N, O, S, or P).

IC ICM G03C001-498
ICS G03C001-498

CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST **photothermog** material carboxylic acid compd storage stability; phenol reducing agent **photothermog** material; phosphine oxide **photothermog** material; polyhalo compd antifoggant **photothermog** material

IT **Photographic** fog inhibitors

(**photothermog**. material contg. polyhalo compd. antifoggant)

IT **Photothermographic** copying
(**photothermog**. material with good storage stability)

IT 17025-47-7, Tribromomethyl phenyl sulfone 263339-82-8 299445-94-6 365561-79-1
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(antifoggant; **photothermog**. material with good storage stability)

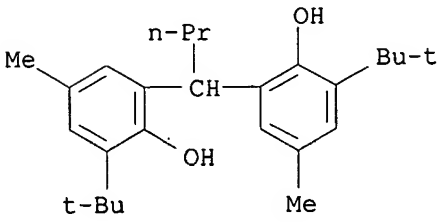
IT 85-56-3 103-04-8 3785-32-8 6163-63-9, Tris(2-methylphenyl)phosphine oxide 25395-22-6 29942-35-6, Tris(p-tert-butylphenyl)phosphine oxide 54930-55-1 82745-72-0 131124-93-1 396716-05-5 401489-47-2
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(**photothermog**. material with good storage stability)

IT 119-47-1 **4081-14-5** 7292-14-0, 1,1-Bis(2-hydroxy-3,5-dimethylphenyl)-3,5,5-trimethylhexane 220049-26-3 339066-84-1
RL: TEM (Technical or engineered material use); USES (Uses)
(reducing agent; **photothermog**. material with good storage stability)

IT **4081-14-5**
RL: TEM (Technical or engineered material use); USES (Uses)
(reducing agent; **photothermog**. material with good storage stability)

RN 4081-14-5 HCA

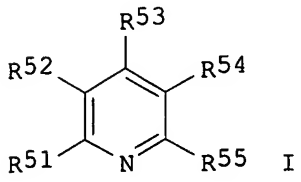
CN Phenol, 2,2'-butylidenebis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)



L67 ANSWER 4 OF 14 HCA COPYRIGHT 2003 ACS on STN

136:207754 **Photothermographic** material using phenolic compound as reducing agent. Ezoe, Toshihide; Watanabe, Katsuyuki (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002055409 A2 20020220, 54 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-239404 20000808.

GI



I

AB In the material comprising a support coated with a layer contg. a **photosensitive** Ag halide, a nonphotosensitive Ag salt, a reducing agent, a nucleating agent with m.w. .gtoreq.500, and a binder, the reducing agent contains .gtoreq.1 phenolic compd. and .gtoreq.1 compd.

satisfying the following condition A and/or B; A : having H-bond forming rate const. (Kf) 20-4000; B : having a structure selected from R21NR22R23, R31SOR32, R43CONR41R42, I, or phosphoryl group; (R21-22 = alkyl; R23, R31-32, R41-42, R44-45 = alkyl, aryl, heterocycle; R43 = alkyl, aryl, heterocycle, NR44R45; R51-55 = H, substituent; .gtoreq.2 of R21-23, R31 and R32, .gtoreq.2 of R41-45, .gtoreq.2 of R51-55 may form a ring). The material gives super high contrast images without line width dependence on development humidity and is useful for **photomech**. process.

IC ICM G03C001-498

CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST **photothermog** material phenolic compd reducing agent; amine sulfone amide pyridine phosphoryl compd **photothermog**; nucleation agent **photothermog** material

IT **Photothermographic** copying
(**photothermog**. material contg. phenolic compd. reducing agent)

IT 91-63-4 91-73-6 791-28-6, Triphenylphosphine oxide 797-70-6, Tris(p-tolyl)phosphine oxide 2071-21-8 6511-91-7 29942-35-6 400796-70-5
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(**photothermog**. material contg. phenolic compd. reducing agent)

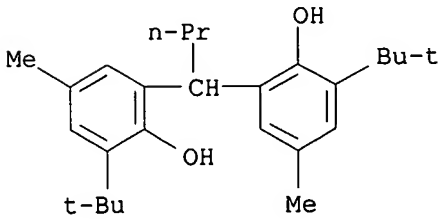
IT 119-47-1 **4081-14-5** 33145-10-7 352708-25-9
RL: TEM (Technical or engineered material use); USES (Uses)
(**photothermog**. material contg. phenolic compd. reducing agent)

IT 400796-71-6 400796-72-7 400796-73-8
RL: TEM (Technical or engineered material use); USES (Uses)
(**photothermog**. material contg. phenolic compd. reducing agent and nucleating agent)

IT **4081-14-5**
RL: TEM (Technical or engineered material use); USES (Uses)
(**photothermog**. material contg. phenolic compd. reducing agent)

RN 4081-14-5 HCA

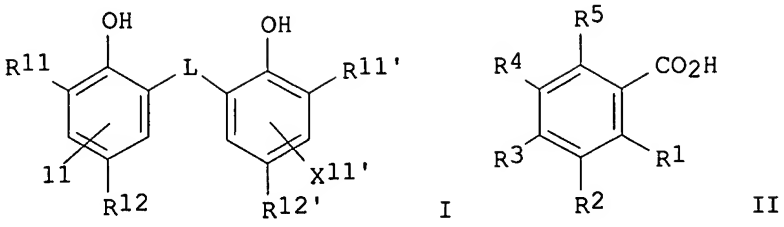
CN Phenol, 2,2'-butylidenebis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)



L67 ANSWER 5 OF 14 HCA COPYRIGHT 2003 ACS on STN

136:175426 Heat developable **light-sensitive** material.
Yoshioka, Yasuhiro (Japan). U.S. Pat. Appl. Publ. US 20020018975 A1 20020214, 33 pp. (English). CODEN: USXXCO. APPLICATION: US 2001-885127 20010621. PRIORITY: JP 2000-195110 20000628; JP 2000-246683 20000816.

GI



I II

AB The present invention relates to heat developable **light-sensitive** material high in heat development activity, excellent in image keeping quality, high in sensitivity and rapidly developable. The heat developable **light-sensitive** material comprises a support having provided on one side thereof a **light-sensitive** silver halide, a light-insensitive org. silver salt, a reducing agent for a silver ion and a binder, wherein the reducing agent is a compd. represented by I (R11,11' = alkyl; R12,12', X11,11' =H, group substitutable to a benzene ring;L = S, CHR13; R13 = H, alkyl); and an arom. carboxylic acid compd. represented by II (R1-5 = H, group substitutable to a benzene ring); and a hydrogen bonding compd. are further provided on the same side where the **light-sensitive** silver halide is provided.

IC ICM G03C001-34
ICS G03C001-498

NCL 430610000

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST **photog** emulsion heat developable reducing agent; medical diagnostic film

IT Reducing agents
(heat developable **light-sensitive** material contg.)

IT **Photographic** emulsions
(heat-developable; reducing agents and hydrogen bonding compd. for)

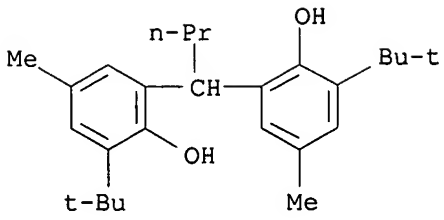
IT 85-56-3 791-28-6 797-70-6 6163-63-9 6338-04-1 29942-35-6 51771-16-5 54930-55-1 82745-72-0 396716-05-5 396716-06-6
RL: TEM (Technical or engineered material use); USES (Uses)
(heat developable **light-sensitive** material contg.)

IT 77-62-3 88-24-4 119-47-1 **4081-14-5** 7292-14-0
RL: TEM (Technical or engineered material use); USES (Uses)
(reducing agent; heat developable **light-sensitive** material contg.)

IT **4081-14-5**
RL: TEM (Technical or engineered material use); USES (Uses)
(reducing agent; heat developable **light-sensitive** material contg.)

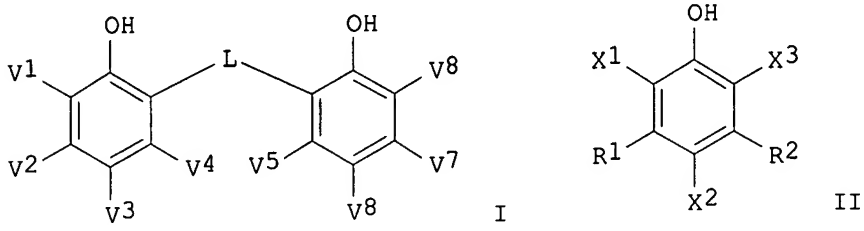
RN 4081-14-5 HCA

CN Phenol, 2,2'-butylidenebis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)



L67 ANSWER 6 OF 14 HCA COPYRIGHT 2003 ACS on STN
135:264614 **Photothermographic** material containing phenolic compound reducing agent. Ooya, Toyohisa; Kato, Kazunobu (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2001264929 A2 20010928, 52 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-76240 20000317.

GI



AB The method forms a dye image by heat-developing a **photothermog.** material contg. at least a **photosensitive** Ag halide, a reducible Ag salt, a reducing agent I (V1-8 = H, substituent; L = CHV9, S; V9 = H, substituent), a phenolic compd. II (R1, R2 = H, substituent; X1-3 = H, substituent; R1, R2, and X1-3 may form a ring), and a binder on the same side surface of a support. It shows high sensitivity and Dmax and reduced Dmin.

IC ICM G03C001-498
ICS G03C001-498

CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST **photothermog** material phenolic compd reducing agent

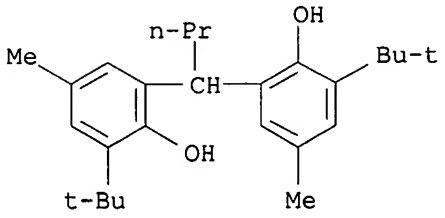
IT **Photothermographic** copying
(**photothermog.** material contg. phenolic compd. as reducing agent)

IT 84-85-5 90-15-3, 1-Naphthalenol 90-66-4 604-44-4 732-26-3, 2,4,6-Tris-tert-butyl-phenol 2050-76-2 3772-23-4 **4081-14-5** 7292-14-0 7588-27-4 28279-38-1 29810-82-0 33145-10-7 60436-65-9 77403-80-6 88725-29-5 361203-13-6 361375-67-9 361375-69-1 361375-71-5 361375-72-6
RL: DEV (Device component use); USES (Uses)
(**photothermog.** material contg. phenolic compd. as reducing agent)

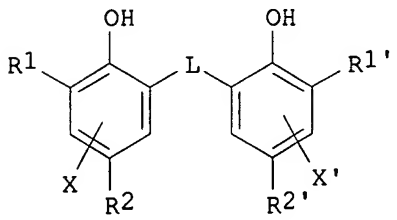
IT 122882-99-9, 6-Isopropylphthalazine
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(**photothermog.** material contg. phenolic compd. as reducing agent)

IT **4081-14-5**

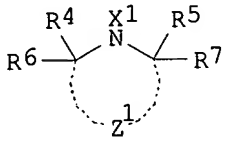
RL: DEV (Device component use); USES (Uses)
(**photothermog**. material contg. phenolic compd. as reducing agent)
RN 4081-14-5 HCA
CN Phenol, 2,2'-butylidenebis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)



L67 ANSWER 7 OF 14 HCA COPYRIGHT 2003 ACS on STN
135:249511 **Photothermographic** material containing phenolic compound reducing agent and amine compound. Yoshioka, Yasuhiro (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2001255619 A2 20010921, 25 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-69753 20000314.
GI



I



II

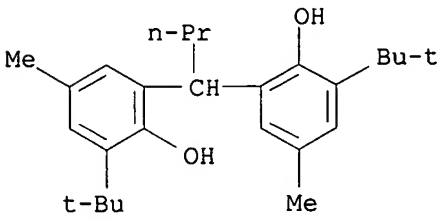
AB The material comprises a support coated with a **photosensitive** layer contg. .gtoreq.1 **photosensitive** Ag halide, a nonphotosensitive org. Ag salt, a binder, .gtoreq.1 phenolic compd. I [R1, R1' = (substituted) alkyl, cycloalkyl; R2, R2' = H, substituent; L = S, CHR3; R3 = H, (substituted) alkyl; X, X' = H, substituent] as a reducing agent, and .gtoreq.1 of II [R4-5 = (substituted) alkyl, cycloalkyl; R6-7 = H, substituent; X1 = H, alkyl, aryl, alkoxy, cycloalkyloxy, aryloxy, allyl, acyl, alkylthio, amino N-substituted amino, acylamino, oxy radical; Z1= atoms to form (substituted) 5- t0 7-membered heterocycle] or its multimer through a linkage as an additive. The material gives high d. images using less amt. of the reducing agent and formed image shows good storage stability.
IC ICM G03C001-498
ICS G03C001-498
CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST **photothermog** material reducing agent phenolic compd; amine compd multimer **photothermog** material
IT **Photothermographic** copying
(**photothermog**. material contg. phenolic compd. as reducing agent and amine compd.)
IT 119-47-1 **4081-14-5** 4773-40-4 7292-14-0 33145-10-7 220049-26-3 360555-86-8

RL: DEV (Device component use); USES (Uses)
(**photothermog**. material contg. phenolic compd. as reducing agent and amine compd.)

IT 2516-92-9 41556-26-7 43224-52-8 52829-07-9 82678-02-2 122586-50-9 122586-90-7 122616-76-6 243140-18-3 360555-87-9
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(**photothermog**. material contg. phenolic compd. as reducing agent and amine compd.)

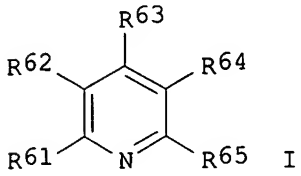
IT **4081-14-5**
RL: DEV (Device component use); USES (Uses)
(**photothermog**. material contg. phenolic compd. as reducing agent and amine compd.)

RN 4081-14-5 HCA
CN Phenol, 2,2'-butylidenebis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)



L67 ANSWER 8 OF 14 HCA COPYRIGHT 2003 ACS on STN
135:249510 **Photothermographic** material containing core/shell polymer particle and hydrogen bond-forming compound. Nakagawa, Hajime; Yasuda, Tomokazu (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2001255618 A2 20010921, 43 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-69732 20000314.

GI



I

AB In the material comprising a support coated with a **photosensitive** layer contg. a nophotosensitive org. Ag salt, a **photosensitive** Ag halide, a reducing agent, and a binder, the **photosensitive** layer comprises (A) dispersion of polymer fine particles with core/shell structure whose glass transition temp. of the cores is lower than that of the shell, and (B) a compd. with hydrogen bonding rate const. Kf = 20-4000, or (C) .gtoreq.1 of R21R22R23N, R31R32S:O, R43CONR42R41, R51R52R53P:O, or I (R43 = alkyl, aryl, heterocycle, NR44R45; R51-53 = alkyl, aryl, heterocycle, NR44R45, OR54; R21-23, R31-33, R41-42, R44-45, R54 = alkyl, aryl, heterocycle; R61-65 = H, substituent). The material shows good lightfastness after processing and coloration of white background is prevented.

IC ICM G03C001-498
CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other

Reprographic Processes)
Section cross-reference(s): 38

ST **photothermog** material hydrogen bond forming compd; polymer core shell particle **photothermog** material; reducing agent polyhydric phenol **photothermog** material

IT **Photothermographic** copying
(**photothermog**. material contg. core/shell polymer particle and hydrogen bond-forming compd.)

IT 9003-55-8, Butadiene-styrene copolymer 115218-15-0 357186-20-0, Acrylic acid-butyl acrylate-ethylene glycol diacrylate-2-ethylhexyl acrylate-styrene copolymer
RL: DEV (Device component use); USES (Uses)
(**photothermog**. material contg. core/shell polymer particle and hydrogen bond-forming compd.)

IT 791-28-6, Triphenylphosphine oxide 797-70-6, Tris(4-methylphenyl)phosphine oxide 29942-35-6
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(**photothermog**. material contg. core/shell polymer particle and hydrogen bond-forming compd.)

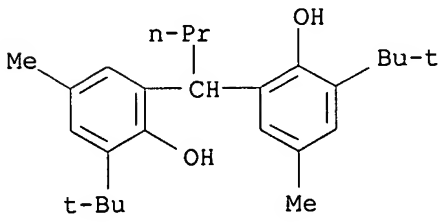
IT 25085-39-6P, Acrylic acid-butadiene-styrene copolymer
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(**photothermog**. material contg. core/shell polymer particle and hydrogen bond-forming compd.)

IT 88-24-4 **4081-14-5** 7292-14-0 33145-10-7
RL: DEV (Device component use); USES (Uses)
(reducing agent; **photothermog**. material contg. core/shell polymer particle and hydrogen bond-forming compd.)

IT **4081-14-5**
RL: DEV (Device component use); USES (Uses)
(reducing agent; **photothermog**. material contg. core/shell polymer particle and hydrogen bond-forming compd.)

RN 4081-14-5 HCA

CN Phenol, 2,2'-butylidenebis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)

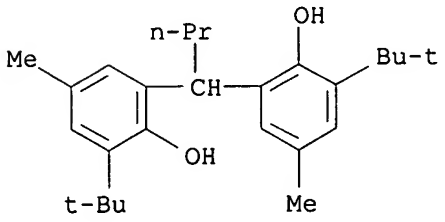


L67 ANSWER 9 OF 14 HCA COPYRIGHT 2003 ACS on STN

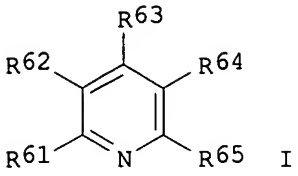
135:160177 **Photothermographic** material using binder formed by coating polymer particle dispersion. Nakagawa, Hajime; Yasuda, Tomokazu (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2001215649 A2 20010810, 45 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-24324 20000201.

AB The material has an image forming layer on a support, contg. a **photosensitive** Ag halide, a light insensitive org. Ag salt, a reducing agent, and a binder formed by coating and drying a water dispersion contg. polymer particles with 10-80 nm av. diam. and 24-110.degree. glass transition temp. It provides images with improved Ag tone stability even under fluorescent lamp.

IC ICM G03C001-498
ICS G03C001-498
CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
ST **photothermog** material binder polymer dispersion; hydrogen bond forming compd **photothermog** material; phenol compd reducing agent **photothermog** material
IT **Photothermographic** copying
(**photothermog**. material using binder formed by coating polymer particle dispersion)
IT 78-50-2, Trioctylphosphine oxide 791-28-6, Triphenylphosphine oxide 797-70-6, Tri(p-tolyl)phosphine oxide 2959-74-2 5424-19-1 29942-35-6
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(**photothermog**. material contg. hydrogen bond-forming compd.)
IT 88-24-4 119-47-1 **4081-14-5** 33145-10-7 352708-25-9
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(**photothermog**. material contg. reducing agent)
IT 9003-55-8, Butadiene-styrene copolymer 25085-19-2, Acrylic acid-2-ethylhexyl acrylate-styrene copolymer 68317-54-4, Acrylic acid-butadiene-divinylbenzene-styrene copolymer 152828-57-4, Ethylene glycol diacrylate-2-ethylhexyl acrylate-methyl methacrylate copolymer
RL: DEV (Device component use); USES (Uses)
(**photothermog**. material using binder formed by coating polymer particle dispersion)
IT 25085-39-6P, Acrylic acid-butadiene-styrene copolymer 25213-39-2P, Butyl methacrylate-styrene copolymer
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(**photothermog**. material using binder formed by coating polymer particle dispersion)
IT **4081-14-5**
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(**photothermog**. material contg. reducing agent)
RN 4081-14-5 HCA
CN Phenol, 2,2'-butylidenebis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)



L67 ANSWER 10 OF 14 HCA COPYRIGHT 2003 ACS on STN
135:160176 **Photothermographic** material containing polymer binder and hydrogen bond-forming compound. Nakagawa, Hajime; Yasuda, Tomokazu; Suzuki, Makoto (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2001215648 A2 20010810, 44 pp. (Japanese). CODEN: JKXXAF.
APPLICATION: JP 2000-24323 20000201.
GI



I

AB The material has .gtoreq.1 **photosensitive** layer on a support, contg. a **photosensitive** Ag halide, a nonphotosensitive org. Ag salt, a reducing agent, a binder with glass transition temp. .gtoreq.24.degree., and (A) a compd. with Kf = 20-4000 (hydrogen bond forming rate coeff.) or (B) .gtoreq.1 of R21NR22R23 (R21-23 = alkyl, aryl, heterocycle), R31SOR32 (R31-32 = alkyl, aryl, heterocycle), R43CONR41R42 (R41, R42 = alkyl, aryl, heterocycle; R43 = alkyl, aryl, heterocycle, NR44R45; R44, R45 = alkyl, aryl, heterocycle), R51POR5253 (R51-53 = alkyl, aryl, heterocycle, NR54R55, OR54; R54, R55 = alkyl, aryl, heterocycle), and I [R61-65 = H, a group to be substituted to a benzene ring; each substituent of all the compds. of (B) may form a ring]. It provides images with improved Ag tone stability even under fluorescent lamp.

IC ICM G03C001-498
ICS G03C001-498

CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

ST **photothermog** material binder glass transition temp; hydrogen bond forming compd **photothermog** material; amine sulfone **photothermog** material; phosphine oxide pyridine compd **photothermog** material

IT Binders
Photothermographic copying
(**photothermog**. material contg. glass transition temp.-controlled binder and hydrogen bond-forming compd.)

IT 9003-55-8, Butadiene-styrene copolymer 25085-19-2, Acrylic acid-2-ethylhexyl acrylate-styrene copolymer 25085-39-6, Acrylic acid-butadiene-styrene copolymer 152828-57-4, Ethylene glycol diacrylate-2-ethylhexyl acrylate-methyl methacrylate copolymer
RL: DEV (Device component use); USES (Uses)
(**photothermog**. material contg. glass transition temp.-controlled binder and hydrogen bond-forming compd.)

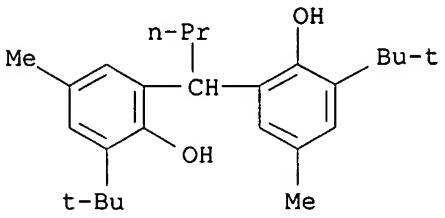
IT 78-50-2, Trioctylphosphine oxide 91-73-6 791-28-6, Triphenylphosphine oxide 797-70-6, Tri(p-tolyl)phosphine oxide 29942-35-6
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(**photothermog**. material contg. glass transition temp.-controlled binder and hydrogen bond-forming compd.)

IT 17025-47-7, Phenyl tribromomethyl sulfone 24687-55-6 85095-67-6 163342-70-9 299445-94-6 299446-72-3
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(**photothermog**. material contg. polyhalo compd.)

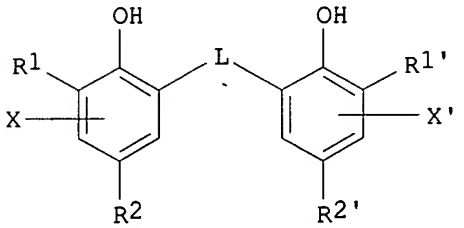
IT 88-24-4 **4081-14-5** 33145-10-7 352708-25-9
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(**photothermog**. material contg. reducing agent)

IT **4081-14-5**
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)

(**photothermog**. material contg. reducing agent)
RN 4081-14-5 HCA
CN Phenol, 2,2'-butylidenebis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)



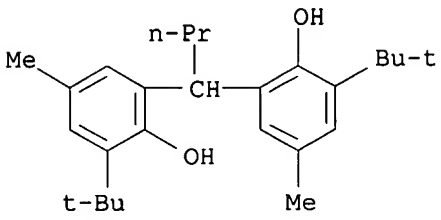
L67 ANSWER 11 OF 14 HCA COPYRIGHT 2003 ACS on STN
135:99891 **Photothermographic** material containing phenolic compound reducing agent. Yoshioka, Yasuhiro (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2001188314 A2 20010710, 29 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-208 20000105.
GI



I

AB The material has a recording layer contg. a light-insensitive org. Ag salt, a **photosensitive** Ag halide, 0.4-3.5 m mol/m2 Ag ion reducing agent contg. .gtoreq.1 of I (R1, R1' = alkyl, .gtoreq.1 R1 or R1' = secondary or tertiary alkyl; R2, R2' = H, a group to be substituted to a benzene ring; L = S, CHR3; R3 = H, alkyl; X, X' = H, a group to be substituted to a benzene ring), and a binder on one side of a support. It provides images with high d. and improved storage stability.
IC ICM G03C001-498
CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST **photothermog** material phenolic compd reducing agent
IT **Photothermographic** copying
(heat-developable **photog**. material contg. org. silver salt, phenolic compd. reducing agent, and silver halide)
IT 88-24-4 119-47-1 **4081-14-5** 4773-40-4
RL: DEV (Device component use); USES (Uses)
(heat-developable **photog**. material contg. org. silver salt, phenolic compd. reducing agent, and silver halide)
IT **4081-14-5**
RL: DEV (Device component use); USES (Uses)
(heat-developable **photog**. material contg. org. silver salt, phenolic compd. reducing agent, and silver halide)

RN 4081-14-5 HCA
CN Phenol, 2,2'-butylidenebis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)



L67 ANSWER 12 OF 14 HCA COPYRIGHT 2003 ACS on STN
131:65875 **Photoimaging** composition containing silver halide, reducing agent, polymerizable compound, decoloring dye, and nucleophilic agent. Okawa, Atsuhiro; Ishikawa, Shunichi; Asanuma, Naoki (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 11149155 A2 **19990602** Heisei, 30 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-315617 19971117.

AB A material, comprising a support coated with (a) a **photosensitive** Ag halide, (b) a reducing agent, (c) a polymerizable compd., (d) a dye A51:L51(L52:L53)m51Q51, A51(:L51L52)p51:B51 or (NC)2C:C(CN)Q51 (A51 = acidic nucleus; B51 = basic nucleus; Q51 = aryl or heterocyclic group; L51-53 = methine; m51 = 0-2; p51 = 0-3; these compds. have no carboxyl and/or sulfo group but contain anti-diffusive groups, but no group which causes redox reaction upon development and the subsequent bond cleavage to be split into plural mols.), which is decolored by nucleophilic agents, and (e) a nucleophilic agent, is imagewise exposed to form a latent image and heat-treated simultaneously with or after exposure to polymerize the polymerizable compd. in the portion where the latent image is present and to decolor the dye in the unpolymd. portion with the nucleophilic agent to form an image. A material, contg. (a), (b), (c), and (d) on a support, may be imagewise exposed to form a latent image and heat-treated simultaneously with or after exposure to polymerize (c) in the portion where the latent image is present followed by contacting with the nucleophilic agent to decolor the dye in the unpolymd. portion to form an image. The material shows good storage stability and provides a high d. image showing improved stability by dry, rapid processing.

IC ICM G03F007-004
ICS G03F007-004; G03F007-06; G03F007-26

CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

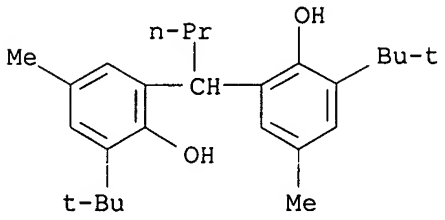
ST **photoimaging** material silver halide; reducing agent **photoimaging** material; polymerizable compd **photoimaging** material; decoloring dye **photoimaging** material; nucleophilic agent **photoimaging** material

IT **Photoimaging** materials
(**photoimaging** compn. contg. silver halide, reducing agent, polymerizable compd., decoloring dye, and nucleophilic agent)

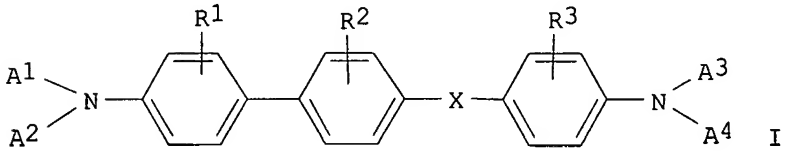
IT **4081-14-5** 5382-38-7 134892-27-6 180387-94-4 228107-38-8
RL: DEV (Device component use); USES (Uses)
(**photoimaging** compn. contg. silver halide, reducing agent, polymerizable compd., decoloring dye, and nucleophilic agent)

IT 208991-97-3P
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(**photoimaging** compn. contg. silver halide, reducing agent,

polymerizable compd., decoloring dye, and nucleophilic agent)
IT **4081-14-5**
RL: DEV (Device component use); USES (Uses)
(**photoimaging** compn. contg. silver halide, reducing agent, polymerizable compd., decoloring dye, and nucleophilic agent)
RN 4081-14-5 HCA
CN Phenol, 2,2'-butylidenebis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)



L67 ANSWER 13 OF 14 HCA COPYRIGHT 2003 ACS on STN
121:217556 Electrophotographic **photoreceptor** containing charge transport amino compounds and antioxidants. Ueda, Hideaki; Tokutake, Shigeaki; Inagaki, Keiichi; Shimada, Juki (Minolta Camera Kk, Japan). Jpn. Kokai Tokkyo Koho JP 05297613 A2 **19931112** Heisei, 45 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1992-101437 19920421.
GI



I

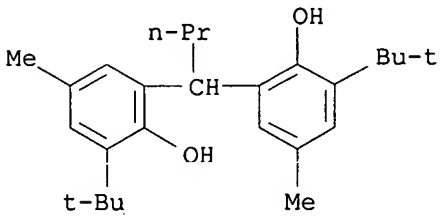
AB In the title **photoreceptor** having a **photosensitive** layer contg. a charge generation substance and a charge transport substance, the **photosensitive** layer contains as a charge transport substance an amino compd. I (A1-4 = alkyl, aralkyl, aryl, biphenyl, heterocyclyl; R1-3 = H, alkyl, alkoxy, halo; X = O, S, CR4R5, NR5; R4-6 = H, alkyl, aralkyl, aryl) and as an antioxidant a compd. having a hindered phenolic structural unit(s) and/or a hindered amine structural unit(s). The **photoreceptor** shows superior sensitivity and stability with little change for long-term repeated use.
IC ICM G03G005-06
ICS G03G005-05; G03G005-06
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST electrophotog charge transport amino compd; antioxidant hindered phenol amine electrophotog **photoreceptor**
IT Electrophotographic **photoconductors** and **photoreceptors**
(charge transport amino compds. and amine and/or phenolic antioxidants for)
IT Antioxidants
(hindered amines and/or phenols, for electrophotog. **photoreceptors**)
IT 118-82-1 128-37-0 991-84-4 2082-79-3 **4081-14-5**
26275-88-7 41556-26-7 51685-31-5 97587-61-6 158061-67-7

RL: USES (Uses)
(antioxidant, electrophotog. **photosensitive** layer contg.)

IT **4081-14-5**
RL: USES (Uses)
(antioxidant, electrophotog. **photosensitive** layer contg.)

RN 4081-14-5 HCA

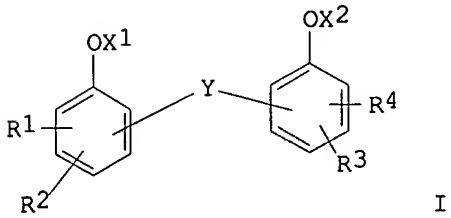
CN Phenol, 2,2'-butylidenebis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)



L67 ANSWER 14 OF 14 HCA COPYRIGHT 2003 ACS on STN

117:223175 Dye-fixing element for color diffusion-transfer **photothermographic** copying. Nakamura, Yoshisada; Seto, Nobuo; Morigaki, Masakazu (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 04031855 A2 **19920204** Heisei, 26 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1990-137883 19900528.

GI



I

AB The title dye-fixing element is made of at least a **photosensitive** Ag halide, a binder, a dye-donating compd. capable of releasing a certain amt. of a diffusive dye disproportional to the amt. of exposure, and this element is thermally developed in the presence of a base precursor after imagewise exposure or during imagewise exposure to release the diffusive dye and subsequently to transfer it onto a receptor. This dye-fixing element comprises .gtoreq.1 compd. I [R1-4 = substituent on benzene ring; Y = divalent bonding moiety; X1,2 = H, alkyl, aryl, carbonyl, PR5R6, O:PR5R6; X2 may form a ring; R5,6 = bonding moiety, alkyl, alkoxy, aryl, aryloxy, amino, OH; and R5,6 may form a 5-6-membered ring]. I is preferably contained in an oil-protected condition.

IC ICM G03C008-40

CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST **photothermog** copying dye fixing element; color diffusion transfer **photothermog** copying

IT **Photothermographic** copying
(color, diffusion-transfer, dye-fixing elements for, contg. compd. in oil-protected conditions)

IT 4066-02-8 **4081-14-5** 144146-25-8 144146-26-9

RL: USES (Uses)
(dye-fixing element contg., color diffusion-transfer **photothermog**. material from)

IT **4081-14-5**
RL: USES (Uses)
(dye-fixing element contg., color diffusion-transfer **photothermog**. material from)

RN 4081-14-5 HCA
CN Phenol, 2,2'-butylidenebis[6-(1,1-dimethylethyl)-4-methyl- (9CI) (CA INDEX NAME)